ATHENS COUNTY
BROADBAND STRATEGIC PLAN

HOCKING ATHENS PERRY COMMUNITY ACTION
April, 2022

Athens
County
Broadband Advisory Committee

hapcap
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COMMUNITY ACTION

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INTRODUCTION

Athens County and the broader region have been plagued by a growing digital divide caused by a broadband network that has failed to deliver. For too many of our residents, broadband internet is simply not available. For many others, the services offered are unreliable and/or unaffordable. In the midst of the global pandemic that highlighted the issue of the growing digital divide, numerous conversations, at multiple levels of the community, had taken place to find ways to address these problems without providing a comprehensive path forward to achieving the goal of an accessible, affordable, reliable broadband network in Southeast Ohio.

In late 2020, the Athens County Foundation and the Osteopathic Heritage Foundation of Nelsonville collaboratively funded the creation of a full-time position to help take these conversations to the next stage and develop a more comprehensive approach to meeting this challenge. As the grantee, in February 2021, Hocking Athens Perry Community Action (HAPCAP) selected Paul Isherwood to serve as the Athens County Broadband Coordinator. Two of the most essential goals that the Foundations and HAPCAP laid out for this role were the establishment of a community-based advisory committee, the Athens County Broadband Advisory Committee, and the development and implementation of a comprehensive Athens County Coordinated Broadband Plan.

The Athens County Broadband Advisory Committee provides advice, support, and community input into the work of the Athens County Broadband Coordinator. In building the Advisory Committee, [see appendix A– ACBAC Committee Members] it was the intention to identify individuals that represent multiple sectors of the community: including, but not limited to local government, the business community, the non-profit sector, schools, healthcare, libraries, and a diverse cross-section of the community. The committee has aided the work of the Broadband Coordinator and the development of this Coordinated Broadband Plan. Going forward, the committee will help the Coordinator to identify and prioritize broadband projects in the county that fit the parameters of this plan.

It is the intent of the Athens County Broadband Coordinator and the Athens County Broadband Advisory Committee to address issues of broadband access and connectivity challenges in the County and the broader region to help deliver a reimagined Athens. The use of the internet grows more and more closely connected with each and every aspect of American society, ranging from economic opportunities, to education, to current events, and more. In spite of this, the Federal Communications Commission (FCC) still estimates that 21 million Americans do not have access to broadband services. This number is alarming. However, many other organizations, including Buckeye Hills Regional Council, speculate that the number is significantly higher.[1] The goal of this project is for an Athens County that is no longer plagued by this divide and as a result, allows every member of our community to avail of the opportunities afforded by a broadband connection. This is our reimagined Athens.
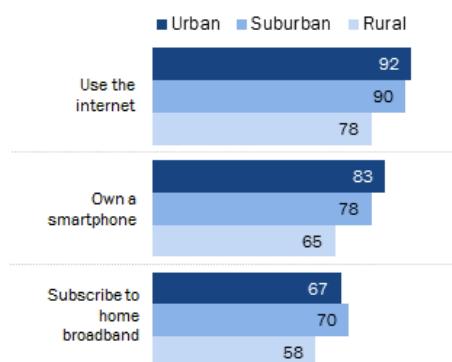
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[1] "How States Are Expanding Broadband Access: New Research Identifies Tactics for Connecting Unserved Communities." *Pew Research Center*, February 27 2020, www.pewtrusts.org/en/research-and-analysis/reports/2020/02/how-states-are-expanding-broadband-access.

BROADBAND IN ATHENS

The FCC defines broadband as a high-speed internet connection, having download speeds of at least 25 megabits per second (Mbps) and upload speeds of at least 3 Mbps. In the year 2022, these speeds are broadly considered as outdated. In March of 2021, a bipartisan group of Senators called on federal agencies to update broadband program requirements to reflect current and anticipated uses—specifically, they called for symmetrical speeds of 100 Mbps.[2] Many households and businesses in rural regions lack affordable, high-speed connection opportunities; therefore, through a combination of working with private service providers and utilizing state funding, it is essential to expand both digital access and inclusion through the implementation of this Broadband Strategic Plan.

Rural adults are less likely than those in other areas to have high-speed internet at home, own a smartphone

% of U.S. adults, by community type, who say they ...

■ Urban ■ Suburban ■ Rural

Use the internet
- Urban: 92
- Suburban: 90
- Rural: 78

Own a smartphone
- Urban: 83
- Suburban: 78
- Rural: 65

Subscribe to home broadband
- Urban: 67
- Suburban: 70
- Rural: 58

Note: Respondents who did not answer are not shown.
Source: Survey conducted Jan. 3-10, 2018.

PEW RESEARCH CENTER

In terms of infrastructure, rural areas often lack the physical systems necessary for providing broadband services, especially to personal residences. According to the Federal Communications Commission, rural communities are significantly less likely to have adequate wiring for broadband access; additionally and congruently, these regions tend to have slower internet connection speeds and lack the expanse of internet service provider options available in urban or suburban areas.[3] Due to the increased challenges associated with extending infrastructure to include rural homes and businesses, many internet providers have pursued economic opportunities in more densely-populated suburban and urban communities, thus leaving these extra connections to the state.[4]

These findings also support evidence that residents of urban areas experience fewer obstacles to reliable internet access. Only 13% of adults living in urban areas and 9% of those living in suburban areas view access to high-speed internet as a major problem in their communities.[5] The contrast between urban/suburban communities and rural ones only exacerbates the inequalities

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[2] K. Bell, "Senators Ask the FCC to change the definition of high-speed-broadband," https://www.engadget.com/senators-fcc-change-definition-high-speed-broadband-222150947.html; For text of letter go to: https://www.bennet.senate.gov/public/_cache/files/c/7/c76028fb-488d-498e-8506-7d8a2dce3172/05DDC9148CC7F12A9F09235F77BB7A0D.bipartisan-broadband-speed-letter.pdf

[3] Monica Anderson. ""About a Quarter of Rural Americans Say Access to High-Speed Internet is a Major Problem." Pew Research Center. February 27 2020, www.pewresearch.org/fact-tank/2018/09/10/about-a-quarter-of-rural-americans-say-access-to-high-speed-internet-is-a-major-problem/

[4] "How States Are Expanding Broadband Access . . ."

[5] Anderson.

perpetuated by insufficient broadband services in rural regions, forming a digital divide that will only deepen if the issue remains unaddressed.

Most relevantly, during the height of the COVID-19 pandemic, many residents of Southeastern Ohio faced significant challenges with remote work and remote learning that placed them at a real disadvantage compared to other areas of the country with reliable broadband connection. As stated previously, access to broadband services affects a wide range of societal factors, including economic opportunities, educational opportunities, social opportunities, and more. The ability to obtain and afford high-speed internet presents an issue of equality and human rights; crucially, this project supports the position that access to efficient broadband in rural regions should *not* be limited to those who can afford to pay burdensome rates. In light of these challenges specific to its clients and community as a whole, HAPCAP has committed to the development of a concrete plan that will address issues with infrastructure, internet connection, and digital inclusion in both public and private spheres.

DEMOGRAPHICS: GEOGRAPHY & POPULATION
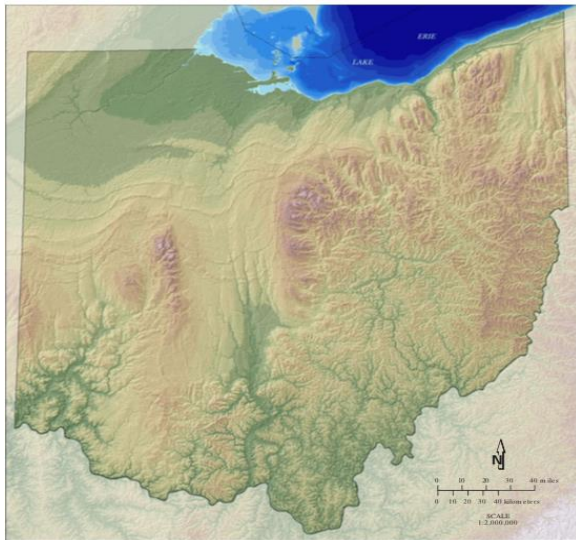
*Map created by the State of Ohio*

Department of Natural Resources

HAPCAP primarily serves a three-county area in Southeastern Ohio: Athens County, Hocking County, and Perry County. This strategic plan focuses specifically on Athens County, which includes a total land area of 503.6 square miles.[6] However, in creating the position of the Athens County Broadband Coordinator, the leadership of both HAPCAP and the Athens County Foundation recognized the need for a regional approach to the broadband challenges facing the county and this has influenced how the coordinator has operated in the role. The geography of the region is an important consideration. As illustrated in the map to the left, the terrain in the region is marked by dramatic hills and valleys (a notable difference from the Northwestern region of the state especially), which poses potential challenges for the construction of the necessary infrastructure for broadband expansion projects.

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[6] "QuickFacts," United States Census Bureau, United States Government, 2019, www.census.gov/quickfacts/fact/table/athenscountyohio/PST045219.

Athens County is home to approximately 65,000 people.[7] 14.9% of the population is under the age of eighteen and 12.1% of the population is sixty-five or older, placing 72% of the population somewhere in between.[8] In terms of racial makeup, the population is 91.2% White, 3.1% Asian, 2.8% Black, 1.9% Hispanic or Latino, 0.4% American Indian or Alaskan Native, and 0.1% Native Hawaiian or Pacific Islander.[9] 2.4% of the population identifies with two or more races.[10]
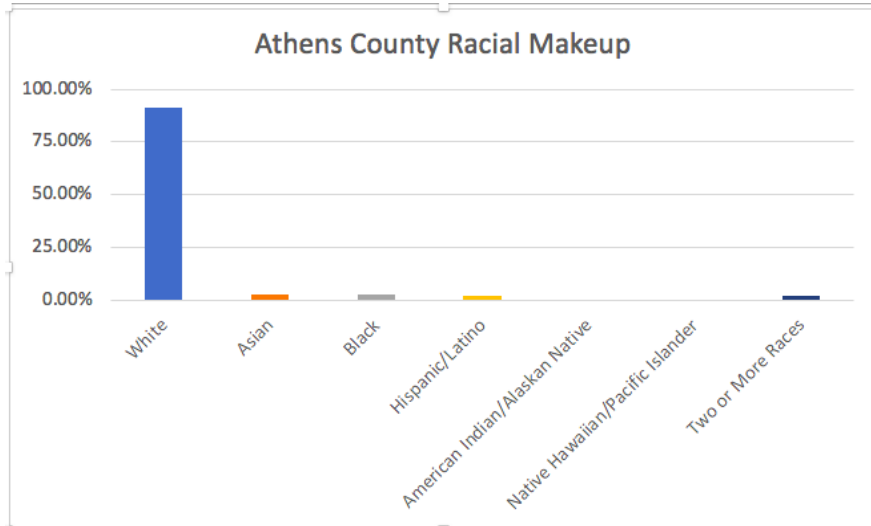
Enrollment in Ohio University, the county's largest employer and an important anchor institution, has been in decline for the past several years. In the fall of 2021, the total number of students attending the university's Athens campus was 17,141, a decline of 17.3% from 2014. In spite of this decline, Ohio University students continue to make up an important demographic consideration in assessing the broadband needs and deficits facing the county.

Athens County, like much of the broader Southeast Ohio region, has suffered with endemic poverty for successive generations. According to the US Census Bureau, 26.6% of Athens County residents live below the poverty line, making the county one of the poorest areas of the state. This is further reflected when comparing the county's median household income of $40,905 to the national rate of $60,843. The most prevalent occupations are educational services (24.1%), manufacturing (15.3%), and retail (11.4%). The vast majority of the workforce work in the private sector (83%). The two cities in Athens County are Athens and Nelsonville, which each house populations of around 24,500 and 5,100 residents respectively.[11] Additionally, there are eight identified villages: Albany, Amesville, Buchtel,

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[7] "QuickFacts," United States Census Bureau, United States Government, 2019, www.census.gov/quickfacts/fact/table/athenscountyohio/PST045219.

[8] https://development.ohio.gov/files/research/C1006.pdf

[9] "QuickFacts," United States Census Bureau, United States Government, 2019, www.census.gov/quickfacts/fact/table/athenscountyohio/PST045219.

[10] "QuickFacts," United States Census Bureau, United States Government, 2019, www.census.gov/quickfacts/fact/table/athenscountyohio/PST045219.

[11] Jessie Schmitzer, "Athens County Coordinated Transportation Plan." (2018): 9.

Chauncey, Coolville, Glouster, Jacksonville, and Trimble.[12] Lastly, there are also thirty unincorporated communities, as illustrated by the chart below. Outside of these areas, the county's population is sparsely populated. According to the 2010 census, the population density for the county stands 128.6 people per square mile. The most recent census data is expected to show a similar lack of population density, highlighting one of the most important challenges to expanding the broadband network in the county. In spite of these challenges, according to the US Census Bureau data, 88% of households in Athens County have a computer and 75.6% have an internet subscription.[13]

CITIES	VILLAGES
Athens Nelsonville	Albany Amesville Buchtel Chauncey Coolville Glouster Jacksonville Trimble

UNINCORPPORATED				CENSUS-DESIGNATED PLACES
Beaumont	Frost	Kilvert	Pleasanton	
Beebe	Garden	Lottridge	Pratts Fork	Hockingport
Bessemer	Glen Ebon	Luhrig	Redtown	Millfiled
Big Run	Guyesville	Mineral	Shade	New Marshfield
Burr Oak	Hamley Run	Modoc	Sharpsburg	Stewart
Canaanville	Hartleyville	New England	Torch	The Plains
Carbondale	Hebardville	New	Utley	
Doanville	Imperial	Floodwood		

Cities and other locations in Athens County

The map below shows the vast network of roads in Athens County and beyond with no mobile broadband services. This problem is directly related to the lack of broadband service in the area, as mobile networks require cell towers connected to fiber optic networks. While a significant fiber "backbone" network exists in the county, it has not been deployed or utilized in a way to optimize cell phone service.

According to the research conducted by the Buckeye Hills Regional Council, between 80% and 90% of households in rural Southeastern Ohio have no broadband services available to them; additionally, 75% of the rural areas studied do not have access to broadband at the
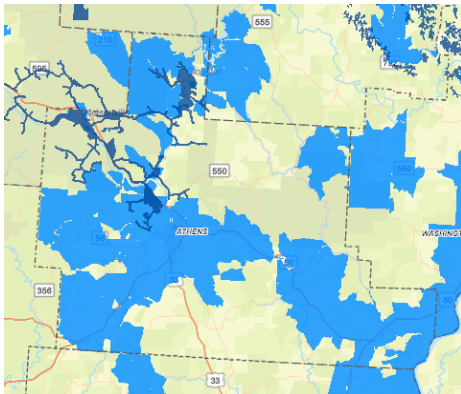
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[12] Schmitzer, 9.
[13] "QuickFacts," United States Census Bureau, United States Government, 2019, www.census.gov/quickfacts/fact/table/athenscountyohio/PST045219.

current FCC minimum of 25/3 – 25 mbps download speed and 3 mbps upload speed.[14] This study indicates that lack of access to broadband results from extremely degraded copper cables, an out-of-date infrastructure whose capabilities mimic the technological advances of the 1930s.[15] Especially with the lower population density in these regions, the unreliable and insufficient infrastructure makes broadband services even more complicated for residents of rural areas.
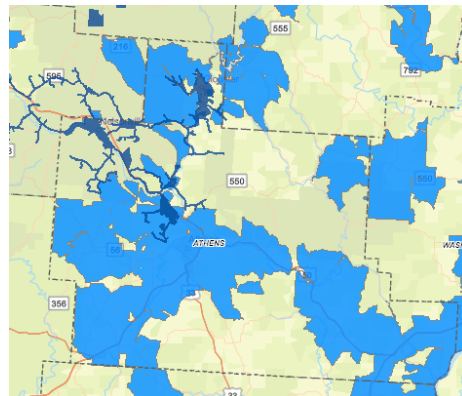
While the whole state of Ohio faces broadband challenges, counties in the Southeastern part of the state face particular disadvantages. One major challenge faced by the whole state is the lack of accurate information about the status of broadband connections. The maps on the following page from the state's broadband strategy illustrate an alarming picture in Athens County about the extent of broadband access.[16] The data used to make these maps, however, is broadly considered as completely inadequate. Based in no small part on studies commissioned by the Buckeye Hills Regional Council and carried out by Reid Consulting Group, the real picture of the broadband network in the region has come to light.

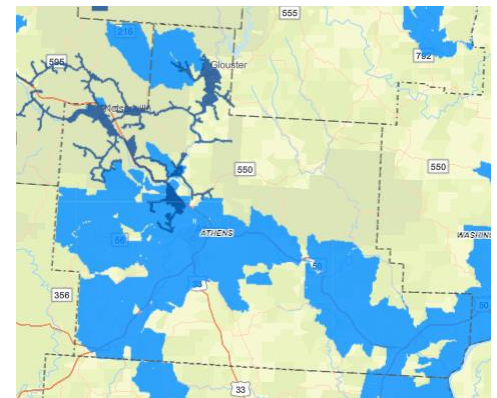| Athens County Data Maps from State's Broadband Strategy |

25 Mbps Download/3 Upload   50 Mbps Download/5 Upload   100 Mbps Download/10 Upload

Buckeye Hills and Reid Consulting argues that these broadband maps, based on FCC data, severely underestimate rural households without access to sufficient broadband services.[17] In partnership with various other local development districts and again with the expertise of Reid Consulting, Buckeye Hills helped create Connecting Appalachia to study the broadband network in the region and advocate for change. In 2021, Connecting Appalachia produced county profiles for the Appalachian region that highlight the true nature of the problem.

[14] "Broadband Research." *Buckeye Hills Regional Council*. 2017. buckeyehills.org/broadband-research.

[15] "Broadband Research." *Buckeye Hills Regional Council*. 2017. buckeyehills.org/broadband-research.

[16] "Ohio Broadband Strategy." *Innovate Ohio*. innovateohio.gov/wps/portal/gov/innovate/priorities/resources/broadband/.

[17] "Broadband Research." *Buckeye Hills Regional Council*. 2017. buckeyehills.org/broadband-research.

According to their research, of the 28,469 households in Athens County, 10,255 are unserved.[18] Having this more alarming but accurate picture is crucial to ensure that any solutions to the problem are designed to address the true nature of the challenge.

In 2021, in response to a wave of criticism from across the country, the FCC begun a process of gathering more accurate data with the aim of producing new maps. Based on the data gathering techniques being adopted by the FCC in this process, it is expected that, when produced in late 2022, these new maps will tell a similar story to those available from Connecting Appalachia. On the next page you will see Connecting Appalachia's map of broadband access in Athens County.
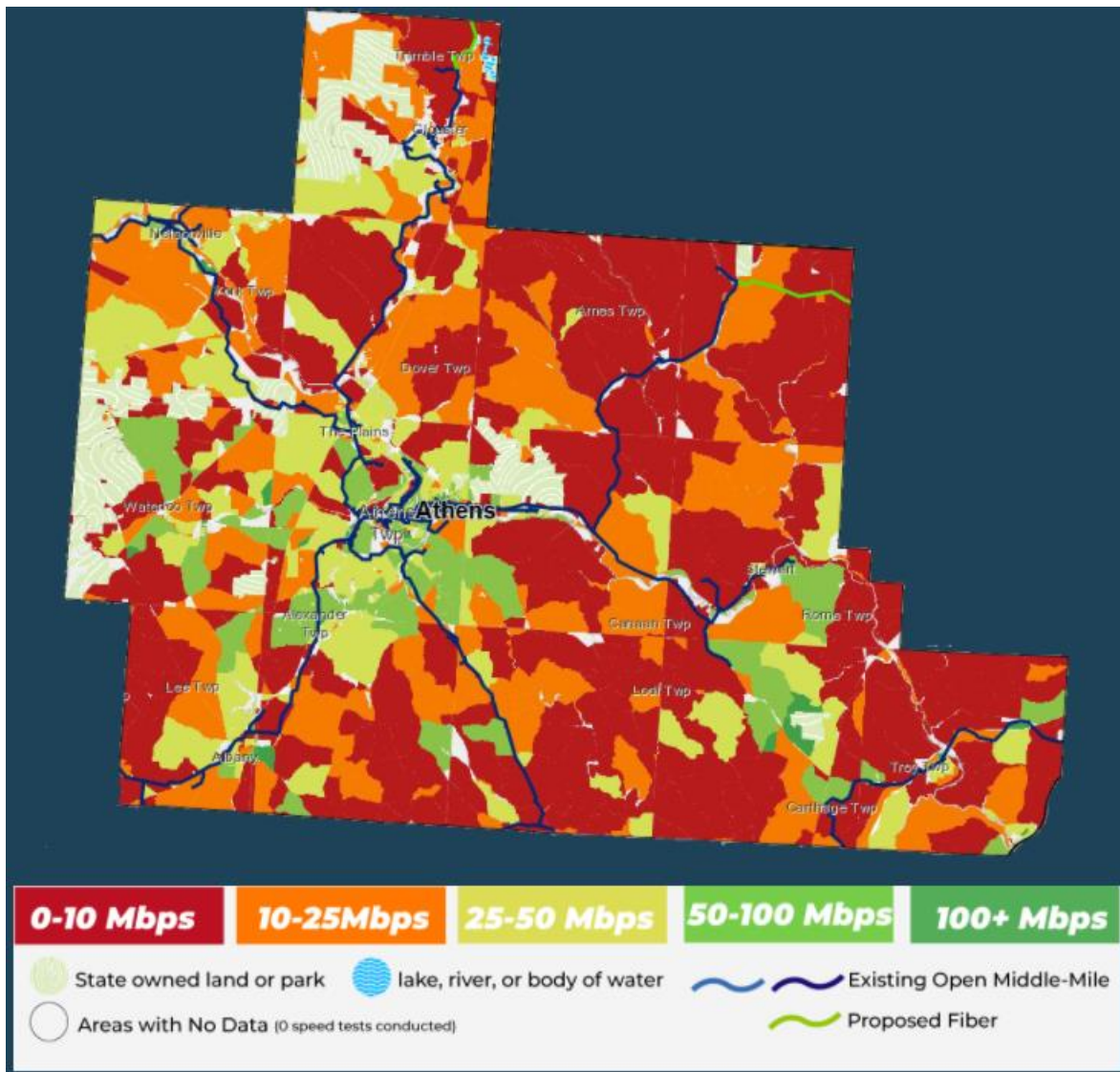
Connecting Appalachia Athens County Profile Map

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[18] https://connectingappalachia.org/countyprofile/2148-2/

In the following sections, this plan attempts to address these flaws and gaps in broadband analyses based on data from surveys and other studies, culminating in a set of concrete steps to address these challenges.

ATHENS COUNTY BROADBAND SURVEY

From June through to the end of October of 2021, the Broadband Coordinator sent out an online survey to the community to gain insights and receive public feedback on the nature of the digital divide in the county. Due to the complications posed by the ongoing COVID-19 pandemic, engaging with the public in more direct ways (such as public meetings, focus groups, etc.) proved very difficult to coordinate. The survey, however, provided a valuable source of data, receiving 188 responses in total. In recognition of the priority to provide residential broadband connections, the survey was targeted to the residential population rather than businesses. 154 or 88% of the respondents indicated that they had an internet connection at their place of residence. As an online survey, this ratio was not unexpected, but does not reflect the level to which Athens residents have access to the internet in their homes. As previously noted, census data indicates that the percentage of residents with a broadband subscription is about 75%. Of the 21 respondents who indicated that they had no home internet connection, a variety of reasons were given. The two most common responses, however, provided by over half of the respondents, were that 1) the cost of an internet connection is too expensive; and 2) no provider offered service to their address.

Unsurprisingly, considering the size of their footprints in the county's internet and telecoms market, the two largest providers, according to survey respondents, are Frontier (27.3%) and Spectrum (24%). The third largest provider according to the survey is local company, Nelsonville TV Cable, with approximately 12% of the market share. More than 3 out 4 respondents do not have a cable television connection. This suggests that "cable-cutting" initiatives, whereby households can replace cable television with online streaming entertainment alternatives, may have a limited impact on the community.

In response to a question regarding the speed and reliability of the service, the survey results provided a mixed picture. Almost half of respondents (48.1%) said that the speed at which webpages load were "good" and a further 12.3% said they were "excellent." This suggests that overall, the majority of users in Athens County were satisfied with the speed of their connection. A significant share of respondents, 39.6% did say, however, that their speeds were "poor." In response to the question about the reliability of their connection, the results provided a similar picture. Over half of respondents indicated that the reliability of their connection is "Good" (44.8%) or "Excellent" (11%). Again, a significant group at 44.2% indicated the reliability of their connection as "poor." This aligns with other analysis in this report that the existing network requires attention. Respondents indicated in comments that problems they encountered were slow connections and regular outages.

In terms of the monthly cost of an internet connection, that most common response of respondents (48%) was in the $50-$75 a month. 31.6% had a more expensive connection

in the range of $76-$100 a month, and an even smaller share paid above $100. Only three respondents paid more than $151 a month. Considering the income profile of the county and the availability of the FCC Emergency Broadband benefit, it was disappointing to see that only ten respondents to our survey had participated in the FCC's subsidy program. Furthermore, 90% of our respondents were paying more than $50 a month for their service. The most common response from respondents as to why they were not taking advantage of the Emergency Broadband Benefit was that they either did not know about the program (68.3%) or that their household was not eligible (27.6%).

The most popular uses for respondents' use of home internet were "work," "entertainment," and "communication." 77 respondents indicated that somebody in the household used the home connection for work, highlighting the already integral role that home internet connections are playing in the economics of Athens families.

ASSESSMENT OF AVAILABLE SERVICES

Existing Broadband Service Providers

According to the FCC, Athens County is home to eleven internet service providers, but only seven offer residential services. In reality, the broadband market in the county is dominated by three main companies – Spectrum, Frontier, and Nelsonville TV Cable. In spite of this number of operators, there remains vast swathes of the county without service.

Approximately 13,000 people do not have access to 25 Mbps wired broadband, and some 1,000 households have no access to any wired internet. Moreover, very few areas of the county benefit from any form of market competition between companies. Almost 13% of consumers in Athens have access to only 1 or fewer wired internet providers at their address. Outside of the more densely populated regions, such as Athens and Nelsonville, consumers are at the mercy of historical divisions of the region by outdated phone company practices, or by agreements between providers not to compete against one another. The low population density of these areas decreases the viability of competition for subscriber-based communication markets, and this is unlikely to change for the foreseeable future. Here is an overview of the main providers in the county and those that have engaged with Broadband Coordinator. While there are other operators, the service footprint that they have and the service level they offer are of a nature that means they are unlikely to have the ability to play a significant role in improving access to broadband quality internet in the county.

Spectrum / Charter

Website: www.spectrum.net
Contact: Brian Young, Director, Government Affairs, Ohio
Email: brian.young@charter.com +.
Other: Low-income plan - Spectrum Internet Assist –
spectrum.com/internet/spectrum-internet-assist

The largest internet service provider in the county is Spectrum, a brand operated by the corporation Charter. The primary contact with Charter/Spectrum is Director of Government Affairs in Ohio, Brian Young. Charter secured the largest number of census blocks offered in the Rural Digital Opportunity Fund (RDOF), a reverse auction process offered by the Federal Communications Commission (FCC) in an effort to encourage ISPs to expand their services into rural parts of the country. (For more information on RDOF, see page 40) In several meetings with representatives from the company, Charter has indicated their intention to build beyond the blocks they secured in the RDOF process. This deployment will take the form of fiber-to-the-home. Currently, in Athens County, the anticipated timeframe for beginning the process is 2023.

Spectrum currently offers a low-income internet option that we have promoted to members of the community. The Spectrum Internet Assist plan offers eligible low-income households discounted 30 Mbps high-speed internet, along with Security Suite and an internet modem, at no additional charge. The program does not include a long-term contract and there are no data caps. Eligibility for the program requires that at least one member of a household participates in one of the following programs:
- National School Lunch Program (NSLP)
- Community Eligibility Provision (CEP) of the NSLP
- Supplemental Security Income (for applicants age 65+ only)

Spectrum participated in the FCC's Emergency Broadband Benefit program and is offering its successor, the Affordable Connectivity Program.
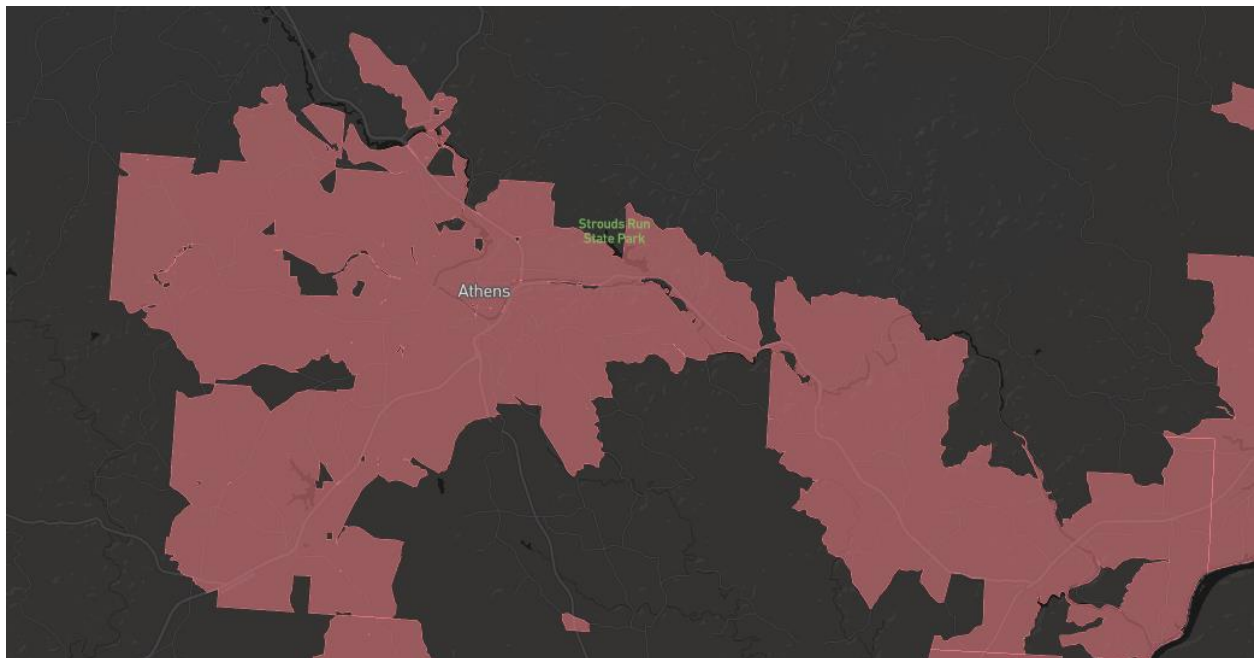
FCC Mapping showing coverage area of Charter Communications
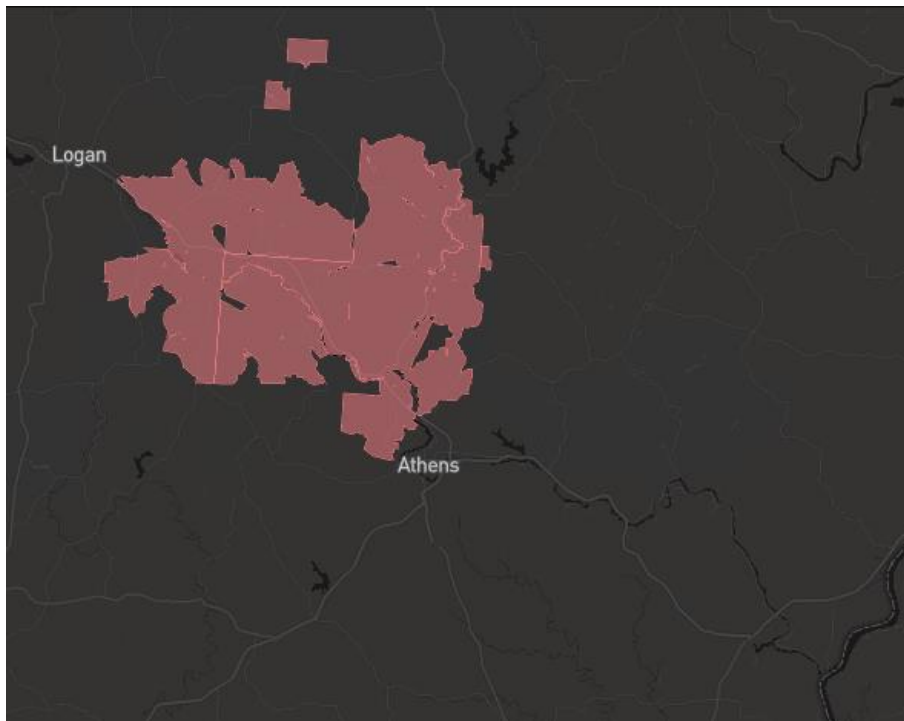
Nelsonville TV Cable

Website: https://nelsonvilletv.com/
Contact: Jim Edwards
Phone: (740) 707-3442

Nelsonville TV Cable is a locally owned and operated ISP. Founded in the 1952 by Eugene "Joe" Edwards, the company is now led by Jim Edwards, Joe's son. According to the company's grant applications to BroadbandOhio, Nelsonville TV Cable "maintains nearly 600 miles of HFC network infrastructure, which currently serves more than 6,600 customers in four Ohio counties (Athens, Hocking, Perry and Morgan). The customer footprint of the company in Athens County is primarily based around the Nelsonville area and north through the State Route 13 corridor, including the villages of Chauncey, Millfield, Jacksonville, Trimble, and Glouster. A significant portion of the company's physical deployment is copper line. Through meetings with Jim Edwards, the company has indicated their intention to expand their footprint and improve their current network. The company's expansion plans are based around using G-Pon (Gigabit Passive Optical Network) technology – a system that allows for very high speeds and extensive service expansion. The company currently has a team of twelve employees, but "anticipates the need to hire new employees to support the expansion of its service footprint."[19]

Currently, the company is approved to participate in the FCC's Emergency Affordable Connectivity Program.

FCC Mapping showing coverage area of Nelsonville TV Cable

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[19] https://broadband.ohio.gov/static/12132021-Redacted-Applications-Web.pdf

Frontier Communications

Frontier Communications has a significant market share in areas outside of the city of Athens. Frontier primarily offers DSL internet. In spite of efforts to cut costs and sell off parts of the company, in April 2020, Frontier Communications filed for bankruptcy. The company emerged from this status in May 2021. As a result of this turmoil, Frontier has not been in a position to expand its operations and improve its services in Athens county.
In spite of attempts to communicate with Frontier, the company has not been able to update the Broadband Coordinator on specific plans for the county.

Frontier participated in the FCC's Emergency Broadband Benefit and its successor the Affordable Connectivity Program.
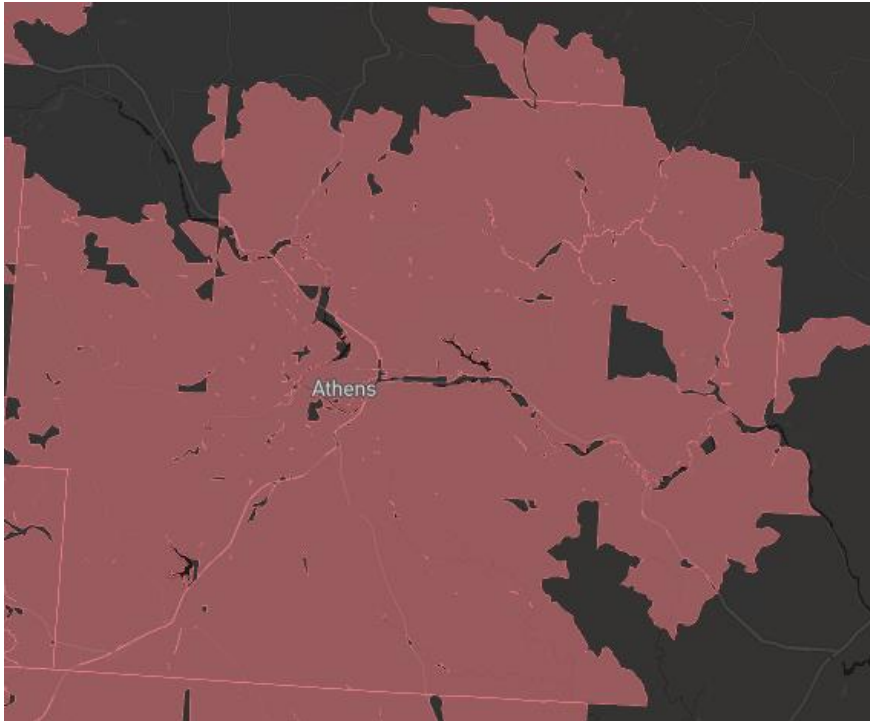
FCC Mapping showing coverage area of Frontier Communications

Windstream

Formerly known as Valor Telecom, Windstream Holdings, doing business as Windstream, operates in the eastern part of the county. The services offered by Windstream are mostly based on a fiber supported fixed wireless network. Based on meetings with representatives from Windstream, it is clear that that are intending on expanding their presence in the region and in Athens County. These meetings have primarily been with Jeanne Shearer, RVP for Government affairs and her replacement Christopher J. Thomas. Based on these meetings, Windstream has undergone significant recapitalization and are in a position to undertake this expansion.

Through conversations with Mr. Thomas of Windstream, the company has indicated a willingness to explore expansion in the Troy Township area. However, it is also clear that the company would likely require local funding to help offset the costs of such an expansion. Representatives from Windstream have not actively explored meetings with local officials, suggesting that the county is not a high priority.

Windstream was one of the first operators in the county to engage the FCC's Emergency Broadband Benefit Program. They are also participating in its successor the Affordable Connectivity Program.
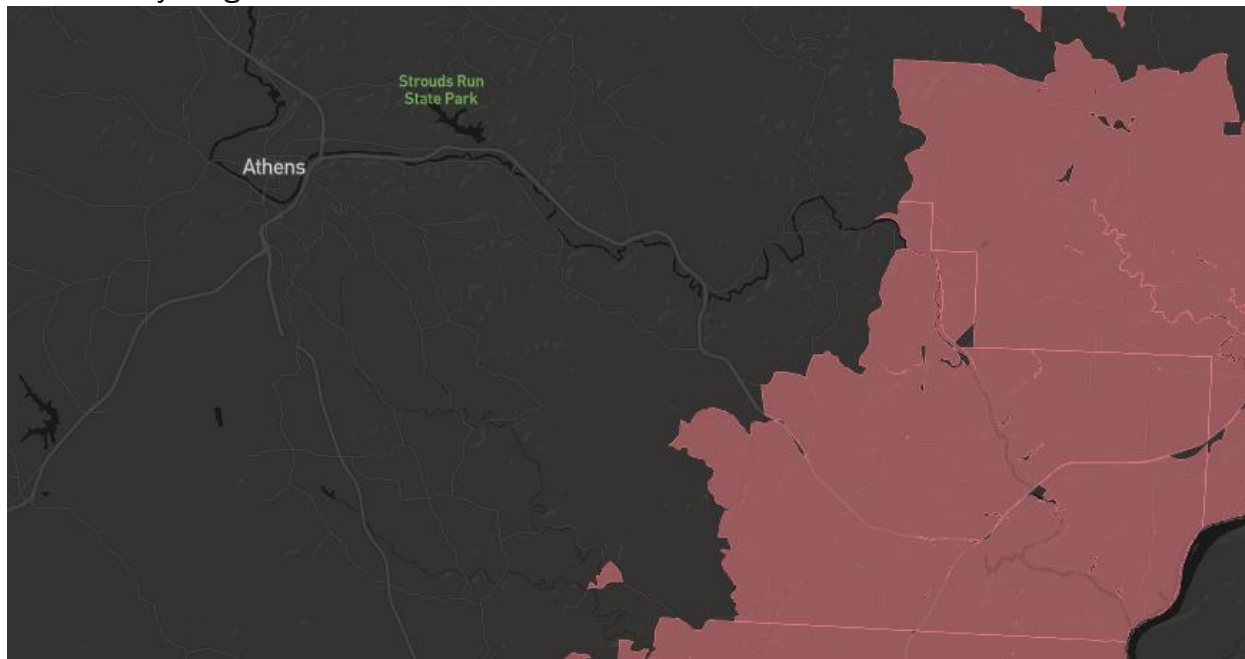
FCC Mapping showing coverage area of Windstream

Point Broadband

Website: point-broadband.com
Contact: Mason Liles
Email: mason.liles@point-broadband.com

In 2002, Chris Cooper founded Intelliwave Broadband in Athens Ohio. Over the course of eighteen years, Cooper built the company up to be one of the largest independent ISPs in the state. In 2020, Cooper sold the company to Point Broadband, a Georgia based company. At the time of the sale, Intelliwave was the largest fixed wireless broadband service provider in the state, focusing its business in southern Ohio. In recent years, the company expanded into the fiber optic deployment business with the construction of Gigabit fiber optic networks in Fairfield and Pickaway Counties in Ohio.

The company currently services a number of select areas in thirteen Ohio counties including Athens. The current priority of the company is a contract to provide fiber services in the Dayton area. Following the retirement of Chris Cooper, Mason Liles has taken the lead on business development. Mr. Liles has indicated that the company is interested in increasing its operations in Athens County.

Point Broadband is participating in the FCC's Emergency Broadband Benefit Program and its successor the Affordable Connectivity Program.

OTHER PROVIDERS

Starlink
Website: starlink.com

Starlink is a division of Space X, a company started by Elon Musk that operates a low earth orbit (LEO) satellite system providing internet service in seventeen countries. As of May 2021, the network comprises over 1700 satellites with further expansions planned. On our survey data from the county, no respondents indicated they were using the service, however, through various connections, it is understood that Athens County residents are interested in exploring   Starlink as a source of broadband connection. Due to a variety of issues, including the capacity of the satellite network to provide service, the company is not able to offer service to all interested customers and there is typically a long waiting time to start receiving service. Once signed up, customers are place on a waiting list that can be several months in duration. Eventually, customers receive a Starlink kit that includes a receiving dish, a router, and a mounting tripod. The cost of this equipment to customers is a $500 up-front payment. According to Starlink, customers can expect speeds from 50 to 150 megabits per second and latency from 20 to 40 milliseconds. The company has indicated its intentions to double those available speeds in the near future. The monthly cost of this service is $99.

As part of the RDOF process, the FCC awarded Starlink $885.5 million to expand its services in rural parts of America. None of the RDOF census blocks that Starlink secured are in Athens County or the State of Ohio. As such, our region is not a priority for the company. This is not surprising as LEO systems are widely recognized to be of greatest use in areas with minimal foliage and flatter topography. While Starlink will not become a significant share of the county's broadband solutions, it should be considered a useful option to provide community members, particularly in unserved, remote parts of the county, with access to broadband. The long waiting list for service, the high initial cost, plus the limits in service availability will severely limit the number of households in Athens County who can utilize Starlink as a stop-gap measure until another connection option becomes available.

Ohio Gig
Website: ohiogig.com

In June of 2020, the Athens County Broadband Advisory Committee began communications with Ohio Gig, LLC to examine the possibility of building a fiber network in Athens County. Ohio Gig's CEO is Tim Berelsman. The company is supported by the rural fiber infrastructure investment fund, Fiber Capital Partners, LLC (FCP). Ohio Gig builds community-specific ISPs and maintains a role as the majority owner-operator. Part of the model is seeking out and securing local investment. The Infrastructure team met with Mr. Berelsman and after positive discussions, including the possibility of local investments, Ohio Gig have submitted a preliminary proposal to BroadbandOhio for development in Athens County. BroadbandOhio included the company's proposal for Potential Project Area 5 to the east of the city of Athens in its submission for the NTIA Broadband Infrastructure grant program.

Ohio TT
Website: ohiott.com

Under the leadership of founder Megan Kwame, Ohio Transparent Telecom or Ohio TT, is a new organization aiming to offer service in Athens County. Beginning with a pilot program in the village of Somerset in Perry County, the company uses Mass MIMO LTE technology, an advanced form of fixed wireless, to offer high speed broadband service to residents and businesses. This technology requires the placement of a unit on a tower, either an already existed structure such as a water tower as is the case in Somerset, or a newly constructed one. The company offers a profit-sharing model that would kick in once a tower has approximately 200 subscribers. The model sees a return of up to 70% of the profits earned by the company to subscribers. The Foundation for Appalachian Ohio is a part-owner of the company. Ohio TT has submitted an application to the state's Residential Broadband Expansion Grant including a significant coverage area in the county.

Ohio TT does not currently offer the FCC's Emergency Broadband Benefit. The pricing structure, which currently offers an option below $30, plus the profit-sharing model, however, means that Ohio TT would offer a very affordable option for Athens County Residents. The leadership has maintained an openness to the idea of signing up with the FCC for the Emergency Broadband Benefit once they have a larger customer base and are more established in the market.

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Horizon
Website: horizonconnects.com

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Founded in 1895 as the Home Telephone Company, Horizon began its existence as a home telephone company. Currently, the company focuses on providing broadband internet connections to various markets across Ohio and Indiana. The company's starting point in the broadband field began when it secured a contract to build a network for the Southern Ohio Healthcare Network, which provided it with a sizeable broadband backbone network. Through the company's Residential and Small Business division, they sell "Internet, phone, digital video, security, and broadband services to several counties in southern Ohio." The Enterprise Fiber division "fiber-optic Ethernet, Internet and cloud-based Hosted Voice services in Ohio, West Virginia, western Pennsylvania and Indiana with data center connectivity and backhaul services that span up to Chicago, IL." Currently, Horizon does not offer residential broadband services in Athens County. However, company's sizeable broadband fiber network in the county will likely prove useful in bringing greater connectivity to the area.

A number of local businesses have reported contacts with Horizon, but typically they have found the cost of the services to be very high. Horizon has also been in contact with the city of Athens regarding the city's fiber networking needs. These discussions are ongoing. With the aid of Reid Consulting, Horizon submitted a grant to the state's Residential Broadband Expansion Grant program. If successful, this would see Horizon offer residential services in Athens County for the first time. Horizon participated in the Emergency Broadband Benefit and its successor, the Affordable Connectivity Program.
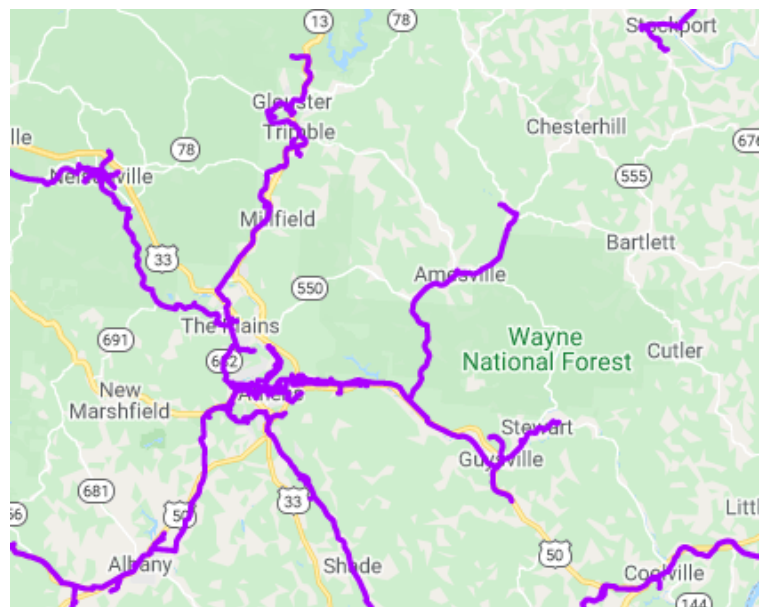
Horizon Fiber network in Athens County. Taken from Horizon's website

AT&T has long had a footprint in the northwestern part of the county, particularly in the area around the city of Nelsonville. In spite of efforts, there has been no contact with AT&T regarding their plans for the area. AT&T submitted an application to the Residential Broadband Expansion Grant program, primarily focusing on addresses in the Nelsonville area. AT&T also has a larger fiber presence in the area that is not open to local access. This fiber connection connects the company's national network.

EXISTING AFFORDABILITY PROGRAMS

Outside of various state and federal employment and welfare programs, including Temporary Assistance to Needy Families Currently (TANF) and Workforce Innovation and Opportunity Act (WIOA), the two most important affordability programs available to Athens County residents are the FCC's programs Lifeline and the Affordable Connectivity Program. Since its inception in 1985, Lifeline is program provides a discount on phone service for qualifying low-income consumers. Currently, beneficiaries receive a discount of $9.25 a month towards an eligible service. Lifeline is part of the Universal Service Fund and is administered by the Universal Service Administrative Company (USAC). The program has historically been aimed at subsidizing phone services, but since 2016 can also be used to pay in part for internet service. While a longstanding program, with less than 3 million subscribers, Lifeline has suffered from significant levels of outside fraud and low levels of participation.[20]

Emergency Broadband Benefit

The Emergency Broadband Benefit was a temporary FCC program designed to help families and households struggling to afford broadband internet service during the COVID-19 pandemic. The benefit provided up to $50/month discount for broadband service, or up to $75/month discount for households on qualifying Tribal lands. Furthermore, some participating providers were also allowing for a one-time discount of up to $100 for a laptop, desktop computer, or tablet purchased through the provider if the household contributes more than $10 but less than $50 toward the purchase price. The Emergency Broadband Benefit was limited to one monthly service discount and one device discount per household. The eligibility requirements for both Lifeline and the Emergency Broadband Benefit are the same. A household could utilize both benefits. A household is eligible if a member of the household meets one of the criteria below:
- Has an income that is at or below 135% of the Federal Poverty Guidelines

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[20] https://www.usac.org/about/emergency-broadband-benefit-program/emergency-broadband-benefit-program-enrollments-and-claims-tracker/additional-ebb-program-data/

- participates in certain assistance programs, such as SNAP, Medicaid, or Lifeline;
- Receives benefits under the free and reduced-price school lunch program or the school breakfast program, or did so in the 2019-2020 or the 2020-2021 school years;
- Received a Federal Pell Grant during the current award year;
- Experienced a substantial loss of income due to job loss or furlough since February 29, 2020; or
- Meets the eligibility criteria for a participating broadband provider's existing low-income or COVID-19 program.

As of September 26, 2021, 5.9 million households across the country have signed up for the Emergency Broadband Benefit. 68% of these subscribers use the benefit with a Mobile Broadband connection. Only 31% of subscribers utilize the benefit with a fixed Broadband connection. This is likely a result of the lack of available fixed connections in the areas where the most needy residents can be found.[21] Of the almost six million households benefiting from the program, 346,117 are in the state of Ohio, with the state currently ranked 4th in the nation for subscribers (only California, New York, and Texas have more). In the eleven zip codes in Athens County, there are 1,607 households signed up to the benefit. In the Athens County Broadband Survey, only ten respondents indicated they were participating in the program. 103 of the 183 respondents indicated that they were not participating because either they did not know about the program or were unable to find information about it. This indicates a need to increase efforts to expand public awareness of this beneficial program. The Emergency Broadband Benefit came to a close on December 31, 2021. Congress replaced the program with the Affordable Connectivity Program. (See later)

Emergency Rental Assistance

Other options open to community members include assistance provided by the Emergency Rental Assistance Program, a $25 billion program created by Congress in the Consolidated Appropriations Act (2021), and a second round of funding also offered as part of the American Rescue Plan (ARPA). These funds are distributed by the Ohio Department of Development's Office of Community Assistance to Ohio's 47 Community Action Agency's (CAAs) to assist low-income households primarily with rent, rental arrears, utility/home energy costs, and utility/home energy cost arrears.

In February, 2021, the Department of the Treasury updated its guidance to how these funds could be used to include internet service if it "allows renters to engage in distance learning, telework, and telemedicine and obtain government services."[22] Only costs attributed to the use of internet for the above reasons are allowable and in the case of a client with a "bundled" service, only the internet portion of the bill can be paid.

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[21] https://www.usac.org/about/emergency-broadband-benefit-program/emergency-broadband-benefit-program-enrollments-and-claims-tracker/; https://www.usac.org/about/emergency-broadband-benefit-program/emergency-broadband-benefit-program-enrollments-and-claims-tracker/additional-ebb-program-data/

[22] https://crsreports.congress.gov/product/pdf/R/R46688

The eligibility criteria for receiving this involves a household of one or more individuals who are obligated to pay rent on a primary residential dwelling. Households including undocumented immigrants are also eligible for assistance.

The eligibility requirements are:

- The household income must be at or below 80% of the AMI. Available AMI levels can be located here: https://development.force.com/OCDTA/s/article/PY-2020-IncomeLimits
- One or more of the individuals residing in the household has:
  - o Qualified for unemployment benefits during 2020-2021; or
  - o Experienced a reduction in household income;
  - o Incurred significant costs; or
  - o Experienced other financial hardship due, directly or indirectly, to COVID-19 outbreak.

It should be an important goal of the Athens County Broadband Coordinator to increase awareness of this program, and to aid local residents in signing up for the program. Moreover, any opportunities for advocacy with policy makers regarding the importance of maintaining and expanding this program should be taken advantage of.

PCs for People

Another initiative under consideration by the Coordinator and the Athens County Public Libraries is a proposed partnership with the Cleveland based organization, PCs for People. This organization provides low and no-cost devices – laptops, desktops, and tablets – that have been refurbished to a high level. After working with the Athens County Department of Job and Family Services office and the Area 14 Workforce Development Board, the plan will be to allow eligible applicants to utilize funding from Temporary Assistance for Needy Families or the Workforce Innovation and Opportunity Act to cover the cost of a device.

Affordable Connectivity Program

Following the passage of the Infrastructure, Investment, and Jobs Act (IIJA), the FCC launched a new program to help make access to broadband internet affordable. From January 1, 2022 the Affordable Connectivity Program (ACP) will replace the Emergency Broadband Benefit. The IIJA provided $14 billion in funding and removed its predecessors ties to the duration of the pandemic.

The ACP offers eligible households the following:
- a $30 a month discount for your internet service.
- A one-time discount of up to $100 for a laptop, tablet, or desktop computer (with a co-payment of more than $10 but less than $50)

The benefit is limited to one monthly service discount and one device discount per household. A household is eligible if a member of the household meets at least *one* of the criteria below:

- Has an income that is at or below 200% of the [federal poverty guidelines](#);
- Participates in certain assistance programs, such as SNAP, Medicaid, Federal Public Housing Assistance, SSI, WIC, or [Lifeline](#);
- Participates in Tribal specific programs, such as Bureau of Indian Affairs General Assistance, Tribal TANF, or Food Distribution Program on Indian Reservations;
- Is approved to receive benefits under the free and reduced-price school lunch program or the school breakfast program, including through the USDA Community Eligibility Provision in the 2019-2020, 2020-2021, or 2021-2022 school year;
- Received a Federal Pell Grant during the current award year; or
- Meets the eligibility criteria for a participating provider's existing low-income program.

While the longevity offered by the increased funding provided to this program is welcome, the decrease of the benefit from $50 to $30 is disappointing. The lack of publicity surrounding this program's predecessor, particularly in rural parts of the country like Athens County, limited its impact as many residents simply did not know of its existence. One the program launched the Athens County Broadband Coordinator released a detailed press release. The Athens County Library staff have been provided information on the program and are offering the public help signing up.

EXISTING DIGITAL LITERACY PROGRAMS

The ability to effectively utilize computer technology and navigate the internet is a crucial component of building a digital ready community. According to Andy Spurgeon of the National Telecommunications and Information Administration, digital inclusion refers to the "adoption of broadband technologies and its meaningful use for social and economic benefits." To allow this happen a community must pursue "broadband access, information technologies, and digital literacy in ways that promote success for communities and individuals trying to navigate and participate in the digital economy."[23]

The research of the Director of Purdue University's Center for Regional Development, Dr. Robert Gallardo, demonstrate that households with internet and device access see higher educational attainment and earning levels. In order to achieve these outcomes, however, Gallardo argues that a community must not only provide the access to the internet and the devices that connect, but must also ensure that the community has the skills to take advantage of the opportunities provided by a broadband connection. His research shows that workers with limited or no digital skills are more likely to work for small businesses, and thus have a lower opportunity for advancement and increasing their earning power. Data from the Organization for Economic Cooperation and Development (OECD) shows that almost one third of American workers lack digital skills. Worryingly, younger workers are not immune to the digital skills gap as the same OECD data shows that one in four of American who have no digital skills and 29% of those with limited digital skills are between the ages of 16 and 34.

Dr. Gallardo argues that measuring digital inclusion requires examining three levels where a community sees division. The first is on simply whether or not an individual has access to the internet. In many instances, this is the most straightforward aspect of inclusion to tackle. The second is a measure of how and for what the internet connection is used. How an individual uses the internet can have significant effects on the third level of the divide: economic, cultural, social, and personal outcomes. Access alone does not ensure a meaningful change. To achieve more positive outcomes for an individual, a household, and a community requires improving the digital skillset of those groups. Based on this information, it is crucial that our community takes steps to develop our digital skills.[24]

In Athens County, the primary outlet for digital literacy programming is through the Athens County Public Libraries. The libraries in the county provide a number of ways for community members to develop their digital skills. In February, 2020, Sarie Cornwell started as the part-time Athens Branch Technology Training Librarian. By April 2021, this position was increased to full-time, while another part-time trainer has also been hired. During this time, the library developed a remote technology training program that the COVID-19 pandemic significantly impacted. Not only did the level of demand for technology assistance increase,

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[23] Andy Spurgeon, "Closing the Digital Divide: How Banks Can Help Rural Communities With Broadband," Community Developments Investments (November, 2018), https://www.occ.treas.gov/publications-and-resources/publications/community-affairs/community-developments-investments/nov-2018/cdi-nov-2018-article-3.html

[24] Dr. Robert Gallardo, Presentation to Rural Rise, April 15th, 2021, "Regional Digital Inclusion Planning."

but the manner in which it could be delivered had to be altered as the library branches were closed to the public. As a result, the one-on-one technical assistance by appointment service had to be conducted by telephone, Zoom, or Google Meet, and the staff worked to create video tutorials. In spite of these limitations, the library saw increasing demand for these services. As the library has reopened to the public, this assistance is now offered in-person, and the library has hired an additional technology trainer on a part-time basis.

In a recent development, the Ohio Public Library Information Network (OPLIN), the state agency that coordinates internet access and digital resources for libraries, successfully applied for ARPA funds from the State Library to create a digital literacy platform for libraries across the state. The platform they will utilize is the Northstar Digital Literacy Assessment. This service will provide certifications for people who complete their courses. This will allow individuals pursuing tech-heavy jobs to demonstrate a proficiency to potential employers. This program is expected to start in January, 2022.

Ohio Means Jobs–Athens County has also partnered with the county's library system to provide tech training for its staff and clients. Sarie Cornwell has provided the Ohio Means Jobs staff with training that has allowed them to better serve their clients. While the library remains an important source of help to job seekers in the county, Tami Collins, the Director of Workforce Advancement at Ohio Means Jobs – Athens County, is eager to develop the digital literacy options available to job seekers in the county through her agency.

Another important organization involved in promoting digital skills in the regional community is the George Voinovich School's LIGHTS Regional Innovation Network. This organization assists individuals and companies in twenty-six Appalachian counties through product development, business coaching, and innovation gateways. The network operates maker spaces in various locations throughout the region, including Athens and Marietta. Organizations such as LIGHTS will help play an important role in allowing improved broadband connections in the county to have a real economic impact for the county's residents.

When it comes to digital literacy, it is also important to recognize the role played by the various educational institutions in the county, not least the school districts. Each district provides significant technology training to the student body. Furthermore, the Tri-County Career Center offers a wide range of courses that helps increase the digital skills of community members. Both Hocking College and Ohio University also recognize the need to provide their students with digital training. A list of the courses offered at these institutions that focus on digital skills is provided below. The significant number of students of these institutions that use the Athens County Library's services, however, suggests that there is a need to increase the capacity of training and resources available at these schools.

Ohio University's Office of Information Technology is the primary source of aid for tech issues on the college campus. That office is led by Chief Information Officer Chris Ament. The office releases data regarding the type of support it typically provides. The most recent data covers the fall semester of 2020. This shows that during this pandemic hit time the most common needs of support were related to account issues and Blackboard, the online teaching platform. The office provides tech help and training to faculty, staff, and students who are using university-owned devices.

At the various educational institutions in the county the following courses are available:

School	Course/Program Title	Semester	Course #
Ohio University	Media and the Digital Divide	Fall 2021	MDIA 4011
Ohio University	Communication and New Technology	Fall 2021	COMS 3200
Ohio University	Enterprise Computer Methods	Fall 2021	ETM 1030
Ohio University	Computer Programming in JAVA	Fall 2021	CS 2300
Ohio University	Introduction to Computer Science I/II	Fall 2021	CS 2400/CS 2401
Ohio University	Computer Science Tutorial	Fall 2021	CS 2970T
Hocking College	Microsoft Office	Fall 2021	MICS-1121
Hocking College	Computer App in Med Assist	Fall 2021	MA-2206
Hocking College	Computer Hardware & OP System	Fall 2021	NET-1120
Hocking College	Security Awareness	Fall 2021	CYBR-1100
Hocking College	Python Essentials	Fall 2021	CYBR-2101
Hocking College	Cisco I - Intro to Networks	Fall 2021	NET-1111
Hocking College	NR Info Technology/Equipment	Fall 2021	NRLW-1107
Tri-County Career Center	Retail/Office Program	Fall 2021	
Tri-County Career Center	Graphic Design & Marketing Program	Fall 2021	

A key goal of the Athens County Broadband Coordinator and the Athens County Broadband Advisory Committee in the coming year should be to conduct a deeper assessment of the digital inclusion opportunities available in the county. Furthermore, it will be important to work with community partners, including the libraries, workforce development community, and others to determine the digital inclusion needs of county residents. The goal for the community should be to develop into a digital ready community. This will ensure that the community can maximize the value of increased broadband connection while making the county a location of interest for economic development and internet service providers.

Beginning in late October, 2021, the Athens County Broadband Coordinator reached out to important stakeholders involved in the Athens County Broadband Advisory Committee to begin formulating a strategic approach to digital inclusion for the county. From this an important goal for this initiative should be to promote the concept of digital inclusion to local leaders and the digital literacy opportunities already available to the public.

REMOTE WORK

One important element of improving the broadband network in the county is the potential for economic development. Improved connection to the global market and better opportunities for local businesses to engage their customer base should provide clear economic benefits to the residents while also increasing the range of consumer options, both local and global, available to the community. One area of increasing interest in the economic development conversation, however, is that of remote work. Not only does the concept of working remotely offer economic development possibilities, but it also raises opportunities to improve the quality of life to Athens residents. Studies have shown that the percentage of American workers who work from their home is on the rise, with some estimating that as many as one in five workers will work remotely from by the end of the decade.[25]

Remote work has had a long tradition in Athens without any formal organization. The City of Athens is home to Athens Works, a privately run co-working space that developed into a community hub for remote workers in the area. Discussions between local leaders and nonprofit organizations interested in economic development predated the COVID-19 pandemic and then gained greater intensity as the pandemic increased the need for broadband access while providing a glimpse of the possibilities and challenges afforded by remote working. As part of these discussions, Athens Works co-founder Ben Lachman surveyed the remote workers in the area known to him. From this survey, a clearer picture of the remote working community in the county began to emerge. The survey, which had over 120 responses, showed that current remote workers form a diverse group, many of whom found themselves in changed circumstances as a result of the pandemic. One thing made clear, however, was that working remotely offered many benefits including those that allowed greater economic control and a more family-friendly lifestyle.

Following from these initial discussions, the Voinovich School of Leadership and Public Service at Ohio University, with the aid of a grant from the Economic Development Administration, launched a study to "provide information on remote working support and attraction factors, as well as potential economic benefit, to guide ongoing discussions and future decisions by Athens County and City public policy leadership." The study was directed by Brent Lane, an Executive in Residence at the school. For the purposes of the study, remote work was defined as "the digital alternative to physical commuting to a place of employment." Beyond examining the growing trend across the country of this kind of work arrangement and studying other examples of communities that have sought to promote economic development through remote work strategies, the study focused on identifying the economic benefit of remote workers to the Athens community.

The resulting white paper finalized by Mr. Lane in August 2021 provided a "scorecard" analysis of the strengths and weaknesses of attributes in Athens County for attracting and retaining remote workers to the area. From discussions with the local stakeholders in the Athens County Broadband Advisory Committee's Remote Work Team, a consensus emerged that unlike other areas of the country with adventurous remote work programs, providing opportunities for current Athens residents was a higher priority than attracting new residents

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[25] Brent Lane, "The Athens Remote Working Economic Development Opportunity – Maybe you can "Go Home Again"… Or Never Have to Leave," August 3, 2021, Voinovich School of Leadership and Public Service, Ohio University

to the area. Moreover, it was also clear that the resources at play in other parts of the country, for example Tulsa, Oklahoma or West Virginia's Ascend initiative, were not available in Athens. Mr. Lane's study supported this position. The paper encouraged the county and its leaders to focus on retention of current residents by growing economic opportunities through remote work and the promotion of Athens as a remote work location for people who already had a connection to the area. The most obvious group recommended for such promotion are alumni of Ohio University.

The study identified factors that are prerequisites for successfully growing a remote worker. The top factor is "internet access adequacy." This is defined as "Accessible, affordable, and adequate internet service." The study acknowledged the difficulty of determining an exact level of the broadband deficiency in the county, however, it argued that it is "reasonable to assume that relocating remote working prospects considering Athens County may be discouraged by a real or perceived reduction in their quality of broadband access." As a result, the broadband initiatives identified in this strategy are of significant importance to furthering the any remote work goals of the community.

Another area identified as an important factor that is of interest to this strategy is the availability of remote workspaces, as these types of facility require fast and reliable broadband access. Mr. Lane pointed out that his research showed that these facilities "are especially important for supporting first time and early career remote workers." Indeed, the availability of remote workspaces can help provide a alternative solution for remote workers who lack sufficient broadband connection in their place of residence. Moreover, these facilities help develop a sense of community between individuals engaged in remote work for different employer and in a variety of fields. Based on these conclusions, the Athens County Broadband Coordinator has played an active and supportive role in furthering the city of Athens' Armory project, to convert the Armory building at the southern end of Court Street to a public co-working facility.

While Mr. Lane recommended against employing expensive incentives to induce workers to relocate to Athens and supported the idea of highlighting the nature of the lifestyle already available, the study did make positive predictions regarding the impact of remote workers on the local economy. Lane predicted that through efforts focused on promotion of Athens as a remote working location to current residents and those who already have a connection to the area that the reasonable addition of 100 new remote workers could have a sizeable and beneficial impact. Such an increase of remote workers would have an "induced economic impact of 37 additional jobs, $1.5 million in additional labor income, and to increase economic activity in Athens by over $5 million." These "induced impacts" would be on top of the income and resources provided by the new remote workers. Overall, therefore, the overall economic impact for the county of these new workers would amount to "$8.6 million in total new income, and a $12.3 million expansion of Athens County's total economic output."[26]

This study demonstrates the value to the county of pursuing a remote work development strategy. While remote work will not solve all of the county's economic challenges, it can

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[26] Lane, "The Athens Remote Working Economic Development Opportunity – Maybe you can "Go Home Again"… Or Never Have to Leave."

provide one component of a comprehensive economic development strategy, within which broadband will play an important role. Therefore, it is important for the Broadband Coordinator and the Athens County Broadband Advisory Committee to continue to play a central role in developing the county's remote work strategy.

In the aftermath of the White Paper's publication, it came to light that a number of entities in the county were examining Remote Work as an economic and social development tool. In the spring of 2021, Ohio University announced the introduction of a new "flex work" schedule that would allow many of its employees to work from home. In the fall of 2021, Athens City Council engaged Sunday Creek Horizons in a contract to develop the city's Armory property, located at the southern end of Court Street, into a remote co-working space. The project lead for this endeavor is Sunday Creek Horizon's Vice-President Zach Reizes. The building, a historic landmark in the city that has been vacant for an extended period, requires significant upgrading to accommodate remote workers. Sunday Creek has developed a strategic plan to achieve this goal by identifying a variety of grant opportunities, engaging with architects, and creating a nonprofit entity, Blue Dot, that will oversee the management of the project.[27]

Also, in the Fall of 2021, the Survivor's Advocacy Outreach Program (SAOP), a program of the Ohio University Women's Center created to serve survivors of sexual violence in Athens, Gallia, Hocking, Morgan, Vinton, Meigs, and Perry counties, began planning to incorporate a remote work location into the services they offered their clients. Furthermore, the Area 14 Workforce Development Board, under Executive Director Laurie McKnight, began exploring the GRIT Ohio program as a basis for allowing community members in the board's service area to explore potential job opportunities, including remote positions they may not have previously considered. In the village of Glouster, Dirty Girl Coffee and the Glouster Revitalization Organization (GRO) are partnering to redevelop two buildings in the village's downtown area. One potential use for these buildings is a co-working location. These initiatives demonstrate that remote work is broadly recognized by local stakeholders as a valuable economic development tool for the county.

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[27] https://www.bluedotcoworking.org/

EXISTING BROADBAND FUNDING OPPORTUNITIES

A key component of the county's strategy must be identifying funding opportunities at the federal, state, and local levels. While many of the public funding sources available are directed at ISPs and many of the infrastructure solutions will require ISP leadership, there is an important role for community leaders to play in securing these funds. At a minimum, it is vital for our community partners to provide oversight and accountability with regards to how these public funds are allocated and implemented.

American Rescue Plan Act (ARPA)

The American Rescue Plan Act (ARPA) 2021 is a $1.9 trillion economic stimulus bill. Within ARPA, the Coronavirus State and Local Fiscal Recovery Fund provides $350 billion for states, municipalities, counties, tribes, and territories, including $130.2 billion for local governments split evenly between municipalities and counties. In Ohio, these funds were also allocated to townships. Specifically related to broadband, ARPA allocated the FCC with $7.171B for the Emergency Connectivity Fund (ECF) available through September 30, 2030 for the E-Rate program for schools and libraries to provide broadband and connected devices, such as hotspots, modems, routers, laptops, and tablets for student, staff, and patrons, both on-premises and off-site. Beyond ECF, ARPA funds can be used by state and local governments for a variety of programming related to broadband, including but not limited to subsidizing the cost of subscriptions, building out network infrastructure, and funding digital skills programming. Local governments can decide for themselves how best to use these funds for broadband projects. It should be the goal of the Athens County Broadband Advisory Committee to provide guidance to mayors, commissioners, township trustees, and other officials charged with making these decisions about ARPA-funded broadband projects.

Ohio Residential Broadband Grant Program

On May 17, 2021, Governor Mike DeWine signed Ohio House Bill (H.B.) 2 into law. This legislation created the Ohio Residential Broadband Expansion Grant Program, which is housed under the Ohio Department of Development's BroadbandOhio office. After significant wrangling over the budget allocation for this program during the budget process, during which time the Athens County Broadband Advisory Committee provided letters of support, the funding for this grant program was set at $250 million. The grant seeks applications from internet service providers to provide households with broadband services in unserved and underserved areas around the state. Proposed projects must provide service access of at least 25 Mbps download and 3 Mbps upload to residents in areas that do not have a provider that can supply service at this speed. Part of the scoring for these grants includes a measure of public and local support.

The deadline for ISPs to apply to the program was November 8, at 5pm with awards to follow within thirty days. ISPs can challenge awards made under the grant program, with a deadline of January 30, 2022 at 5pm. This challenge component of the program is important and should be monitored closely by ACBAC.

Based on data released by BroadbandOhio, eight ISPs applied for funding to build projects in Athens County – Ohio Bell Company (AT&T), Ohio Transparent Telecom (Ohio TT), Point Broadband, Spectrum, the Chillicothe Telephone Company (Horizon), Nelsonville TV Cable, Windstream, and Point Broadband. Two of these proposed builds – Horizon and Spectrum – involved countywide efforts to deliver service to all addresses identified by the applicants as unserved in the county. Full details regarding the applications, including lists of proposed service addresses, can be found at the BroadbandOhio website –

https://broadband.ohio.gov/grant-opportunities/grant-opportunities-1/grant-opportunities-1

As part of the process, existing providers were able to challenge the unserved nature of an address. To successfully challenge a proposed address included in another ISP's application the challenger had to prove that either

– It is providing tier two service to the residential addresses contained within the application or
– It is providing tier two service in the area adjacent to the residential addresses contained within the application with plans to provide tier two service to address contained within the application no later than two years from the date of the challenge.[28]

The challenge process saw many challenges made in Athens County. Of significant note, the awarding authority upheld many of the challenges made by Spectrum on the basis of the second of the above stated options. Spectrum provided evidence, including their award of funding from the Rural Digital Opportunity Fund by the FCC and their proposed building timeline to secure the removal of thousands of addresses from other ISP proposals.

On March 18, 2022, Governor DeWine announced the winning bidders for the grant. Unfortunately, none of the large bids for Athens County secured funding. One of the smaller bids, made by Windstream Western Reserve, a subsidiary of Windstream, was, however, awarded $959, 286.64 to build fiber-to-the-home connections to twenty-six addresses across Athens, Meigs, and Washington counties. While disappointed not to receive more funding for the county, BroadbandOhio were able to secure a binding commitment from Spectrum to complete their build of the areas they challenged within a two-year timeframe. Another important element of the Governor's announcement was that a further round of funding for this grant has been approved in the amount of $268 million. It is hoped that Athens County will be able to secure more funding in this second round. Details of the how these funds will be administered are still being worked out by BroadbandOhio.

Infrastructure Investment and Jobs Act, 2021

In November, 2021 President Biden signed the Infrastructure Investment and Jobs Act (IIJA) that provided significant further funding for broadband deployment. Perhaps the most the important element of this law is that the Emergency Broadband Benefit would be renamed as the Affordable Connectivity Program and extended. Funding of over $14 billion from a separate appropriations act will that this benefit providing subsidized access to the internet

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[28] https://broadband.ohio.gov/static/challenge-process-12072021.pdf

for almost five million Americans would continue beyond the pandemic. The eligibility requirements have changed too. The option of showing substantial economic loss has been eliminated and the eligibility expanded from those at 135% of the federal poverty line to 200%. Very importantly, and disappointingly, the subsidy has decreased from $50 to $30 a month.

The IIJA also allows states to apply for $42 billion of broadband infrastructure funding to be overseen by the National Telecommunications and Information Agency. The bill requires that interested states should identify areas within their jurisdiction where at least 80% of the broadband serviceable locations are unserved or underserved. States are also required to prioritize rural areas and locations where poverty rates are high. This should allow Athens County to feature prominently in any application made by the State of Ohio. It should be a priority for the Athens County Broadband Advisory Committee to communicate with BroadbandOhio in helping to shape the state's application for this funding. The IIJA specifically allows states to seek help from "partners that may inform broadband deployment." Our committee should seek to play that role in the county.
This pool of funding will not be released until after the FCC has completed its ongoing process of redrawing its broadband maps. These maps will be used as a basis for identifying unserved and underserved areas of the country. As a result of this process, which is not expected to be completed until 2023, it will be important to focus on other available funding opportunities until this funding is available.

The IIJA requires that any broadband services developed as a result of this funding must provide minimum speeds of 100/20, far beyond the current federally defined broadband speeds. Providers must also offer universal access and a low-cost broadband service for eligible subscribers. Any fiber optic cable deployed with the funding must allow for regular access points - in other words, no long distance trunks that prevent local entities from using the fiber in their vicinity, a problem that has plagued the county in recent years. ISPs receiving funds are required to engage in a public awareness campaign and offer any leftover fiber capacity to public sector entities at wholesale prices. All of these requirements will be important to ensure that Athens County is able to develop the broadband network the county's residents need.

Beyond the construction of traditional broadband infrastructure, these funds can be used to "connect community anchor institutions," for "data collection and broadband mapping," and for "providing reduced-cost broadband within a multifamily residential building." Moreover, the funding can also be used for "affordability, including for internet-capable devices."[29] The IIJA prohibits the exclusion of co-ops, nonprofits, public-private partnerships, utilities, or local governments from grant funds. One major challenge for the county will be the requirement of a 25% local match for any project.

Beyond the requirements for universal access and low-income plans, the legislation includes a separate Digital Equity Act. This requires states to develop a digital equity plan that identifies barriers to digital inclusion and objectives to overcome them. The funds can be used for digital inclusion activities including training and workforce development programs

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[29] https://www.jdsupra.com/legalnews/broadband-in-the-bipartisan-3905598/

and making necessary equipment for connection available at low or no cost. The funding can also be used to build, upgrade or operate new or existing public access computing centers. For these projects, federal funds can only cover 90%.

Rural Digital Opportunity Fund

The Rural Digital Opportunity Fund is a Federal Communications Commission program designed to close the digital divide in the United States by investing $20.4 billion in the construction of rural broadband networks over a ten-year period. The RDOF will be split into two distinct phases. Phase I began in 2020 with the goal of making approximately $16 billion available to providers. The FCC targeted Phase I at census blocks they deemed as completely unserved by an existing broadband provider, thus limiting the impact of the funding and benefitting larger providers who had footprints near unserved areas. The FCC implemented a reverse auction process to award the funds. As a result, lower bidders rather than better bidders secured funding. This process benefitted larger providers over local coops and other non-traditional entities who were interested in entering the rural broadband market. In Ohio, the largest winner of the reverse auction was Charter Communications, trading as Spectrum.

In an analysis of the RDOF process by Tom Reid of Reid Consulting, several problems with the RDOF process have been raised. Mr. Reid has indicated that the process led to such low bids in various census blocks that serious concerns have been expressed about the ability of the winners to provide the required service levels. Moreover, in Athens County for example, the winners were often smaller companies, such as Mercury Wireless, with little or no footprint in the area who secured small isolated pockets of the county. The economic reality is that even with the RDOF funding, constructing broadband services in these sparsely populated areas far from any other operations of the company makes little financial sense. As a result, it is the view of the ACBAC that these areas are unlikely to see construction by these companies. As of September, 2021, there is no indication that these census blocks have been returned to the FCC as is allowable under the program. This situation requires further monitoring by the Athens County Broadband Coordinator.[30] Phase II of RDOF has not yet been announced by the FCC. It is intended that will include remaining areas not completed in Phase I, as well as census blocks that are "partially serviced".

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[30] Buckeye Hills RDOF Comments, February 2021

POTENTIAL PROJECT AREAS

In the spring of 2021, the Reid Consulting Group performed an analysis of the Buckeye Hills Regional Council's eight counties, including Athens. To carry out this analysis, Reid Consulting Group secured a license to access Ookla Speedtest Intelligence Data obtained from February 2020 through April 2021. This data included more than eight million consumer initiated tests, distilled to 460,000 "locations" based on latitude and longitude. From these tests, it is clear that many location across the state of Ohio are served by speeds of less than 10/1. In Athens County, the picture is even starker. (See Fig. 1) While areas of the county, primarily in and around the city of Athens, show tests above the FCC baseline of 25/3, approximately 97% of the geographic area of the county lacks the 100/20 speed average in those well served areas.
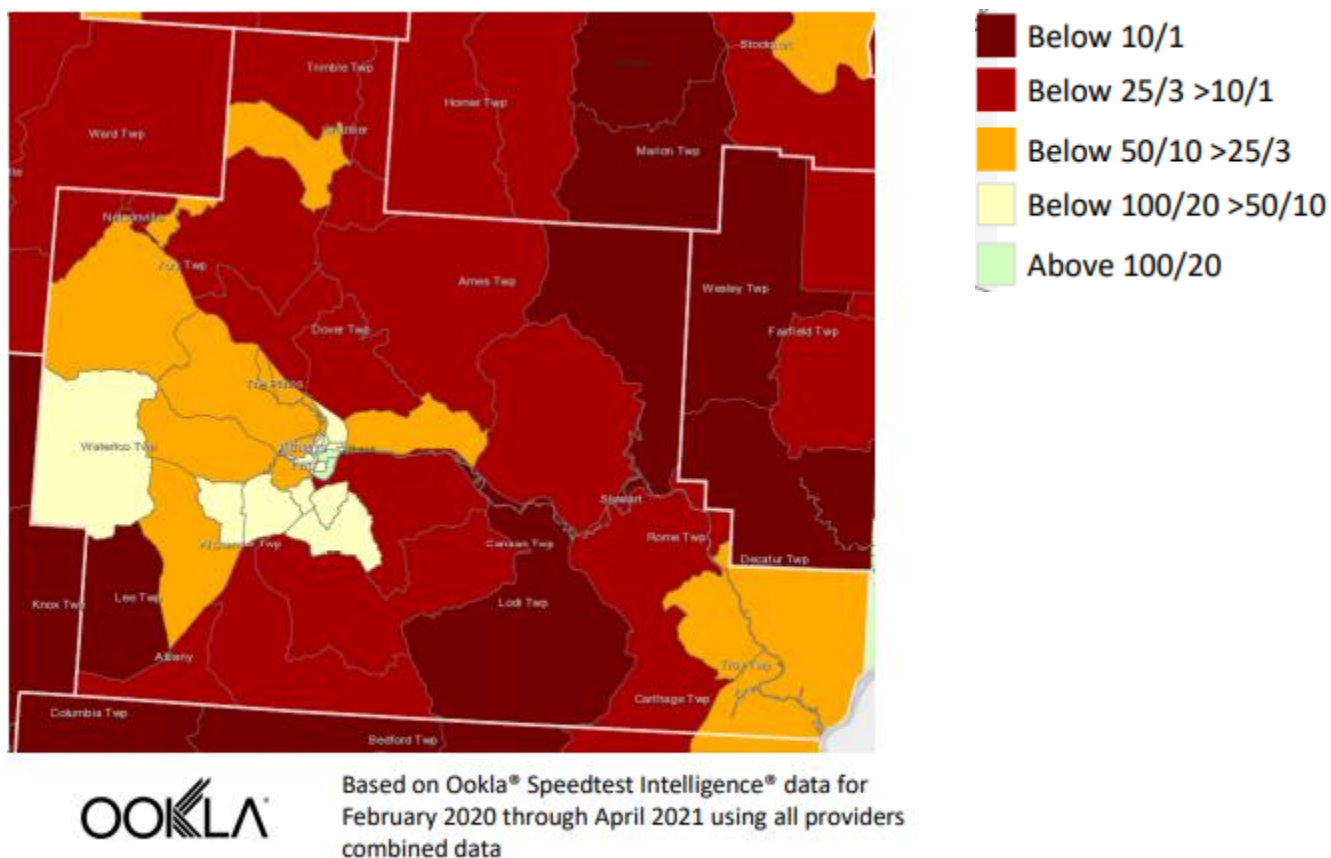
Figure 1 Athens County Ookla Speedtest Map

Based on this data and other consideration, the Reid Consulting Group identified seven potential project areas in the county. These seven areas were identified using a range of criteria, including the practicality of deployment, the number of households, the type of

terrain, the evidence garnered from Ookla Speedtests, and Reid Consulting's knowledge of the area.

One key factor was avoiding overlap with RDOF Award areas to ensure the viability of securing public funding to encourage ISPs to build in these areas. While RDOF covered a significant number of census blocks in the county, many unserved and underserved areas were not included in that auction process. The primary avoidance was directed at areas secured by Charter/Spectrum in the RDOF process as these are the areas considered most likely to see development under that process. Other areas, secured by Mercury Wireless, Connect Everyone, and LTD Broadband were not given the same consideration as it was deemed far less likely that these companies will complete the build expected by RDOF. This is due to a number of factors including the lack of previous engagement in the county by these entities and that they secured are not contiguous with any other service area they currently serve.

Another important element determining these potential project areas was the proximity to existing middle mile fiber. This proximity is crucial for two main reasons. The first of these is the stated preference of the community to develop fiber-based solutions to the broadband deficit. The second is to ensure the relative affordability of developing a fiber-to-the-home model in these project areas, which without access to already established middle mile fiber would not be feasible.
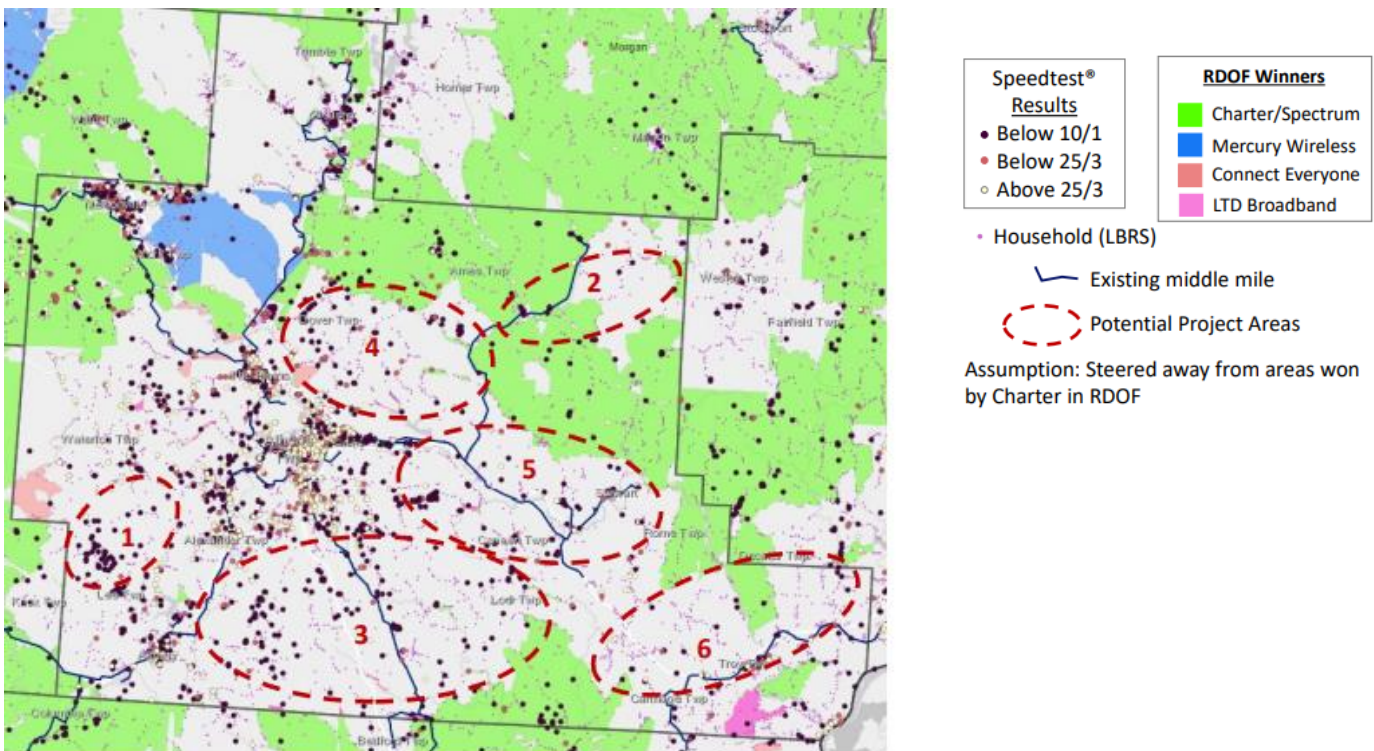
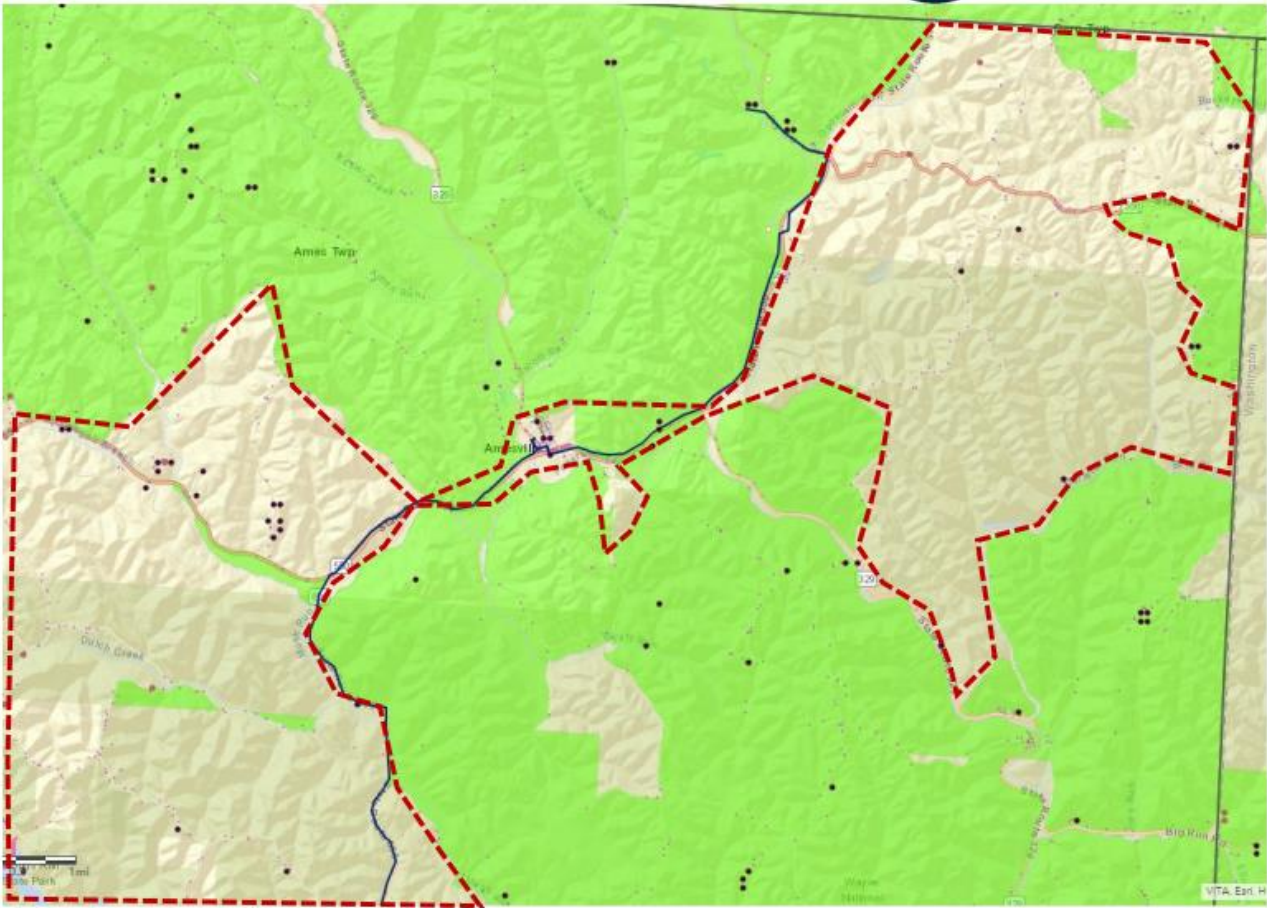## Potential Project Area 1 – North of Albany

This approximately twenty-five square mile area to the north of the village of Albany is located in the southwest corner of the county. An area of rugged terrain, there are hundreds of houses in the area either unserved or underseved. Ookla speedtesting shows that most reliable connections in the area do not offer speeds above 10/1. In the village of Albany, which is not includd in this project area, higher speeds are available.
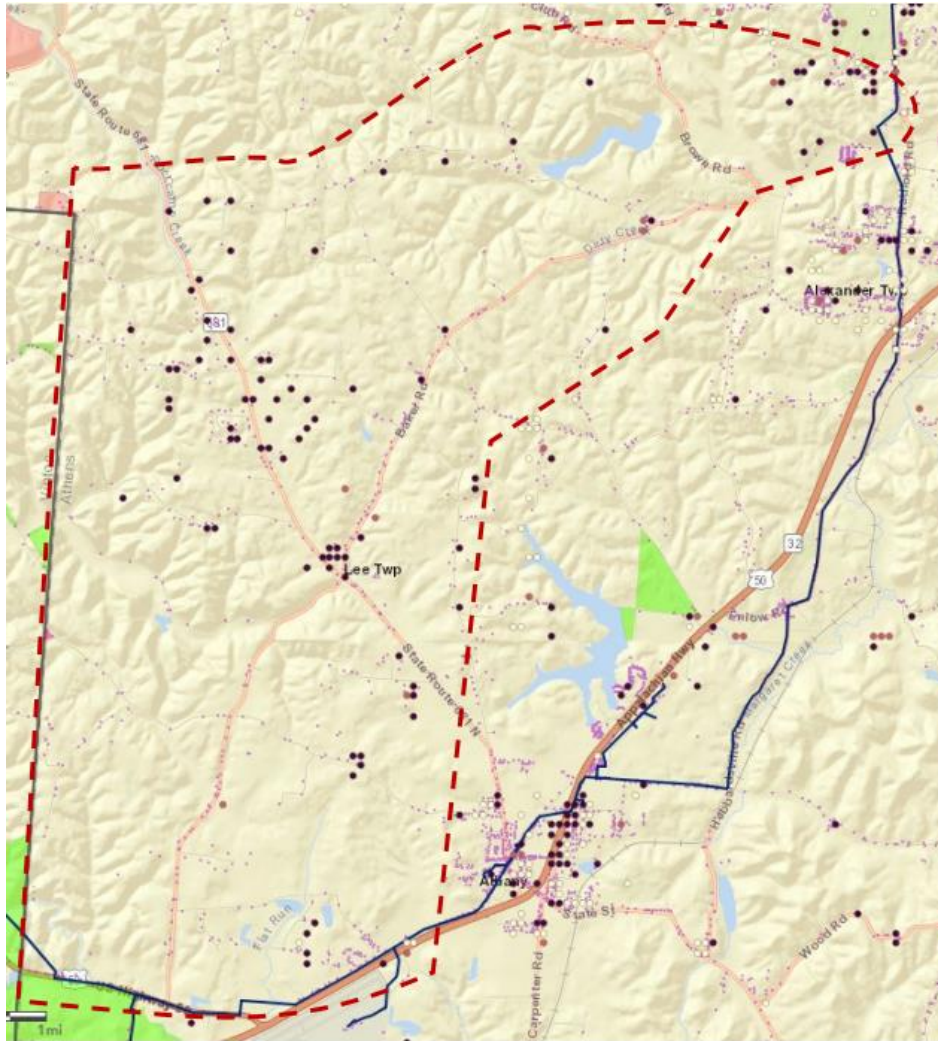
This lack of broadband connection is a clear barrier to economic and social development in the region. Many households have to use AT&T mobile connections to gain access to the internet, thus resulting in a limited capacity to fully utilize the internet. The project area has adjacent access to middle mile fiber. At a minimum, Horizon Fiber has middle mile fiber connecting the village of Albany and a line running from the city of Athens along the 50/32 highway. The Ookla evidence level that this is an area in need of development is high. It is reasonable to assume that most of the areas where no speedtests have been recorded are likely unnserved.
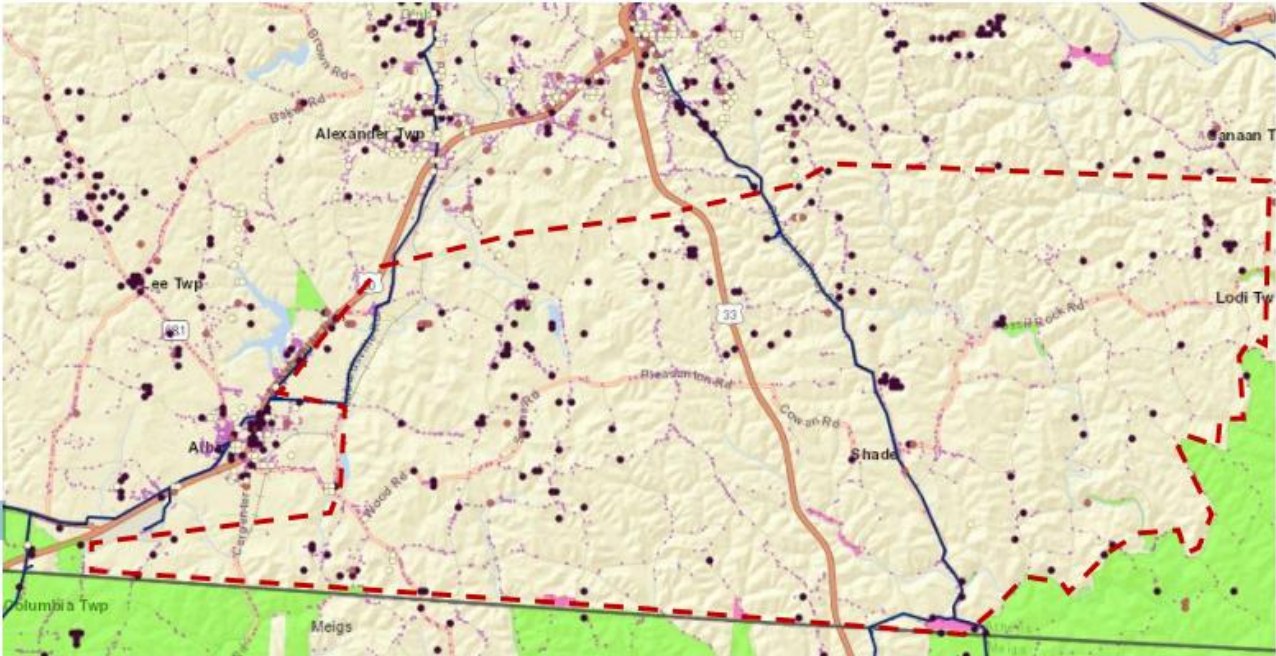
Potential Project Area 2: Amesville Area

This area, including the village of Amesville, covers about 25 square miles in the township of Ames. This area is surrounded by RDOF census blocks secured by Charter. The project area has been designed to avoid overlap with these areas. In the area there are approximately 170 households. The terrain is rugged, however, the area benefits from a direct connection to middle mile. The Amesville Elementary School is served directly by a fiber connection provided by Horizon Fiber. The Ookla data and the survey data conducted suggests that access to speeds above 10/1 are rare, if non-existent. Mayor Gary Goosman has indicated that "a day where you get 5/1 are good days." We are assuming with a high degree of confidence that areas in the project area boundary where no speedtest has been received are likely to be unserved.

Potential Project Area 3: South of Amesville

The third potential project area is to the south of the village of Amesville and includes the village of Shade. Larger than the previous two areas, at about 60 square miles, this project area has also been conceived with avoiding RDOF census blocks in mind. An assumption has also been made that many households adjacent to these census blocks are likely already served by the winning bidder, Charter. The area includes hundreds of households where the Ookla evidence is very high that access to broadband speeds is very limited, if non-existent. Like the previous areas the terrain is challenging due to its rugged nature. Moreover, access to the nearest Middle Mile connection is estimated to be approximately 3 miles.

Potential Project Area 4: East of The Plains

Potential Project Area 4 is an approximately twenty square mile area to the east of the village of The Plains, just to the north of the city of Athens. The area is located mainly in the Dover township. Due to potential conflicts with providers in Chauncey and The Plains, those more densely populated areas were excluded. This is an area with households in the hundreds in fairly rugged terrain. There is nearby access to middle mile connection within two miles. The RDOF winner of census blocks in this area is a company called Connect Everyone. Based on their lack of presence in the Athens market prior to this auction, the view of the Athens Broadband Advisory Committee is that Connect Everyone is unlikely to follow up with its interest in the area. It is a reasonable assumption that should Charter enter the RDOF areas they secured bordering this area, that they might be expected to also extend their network here too. The data collected by Ookla in this area provided strong evidence that need in the area is high.
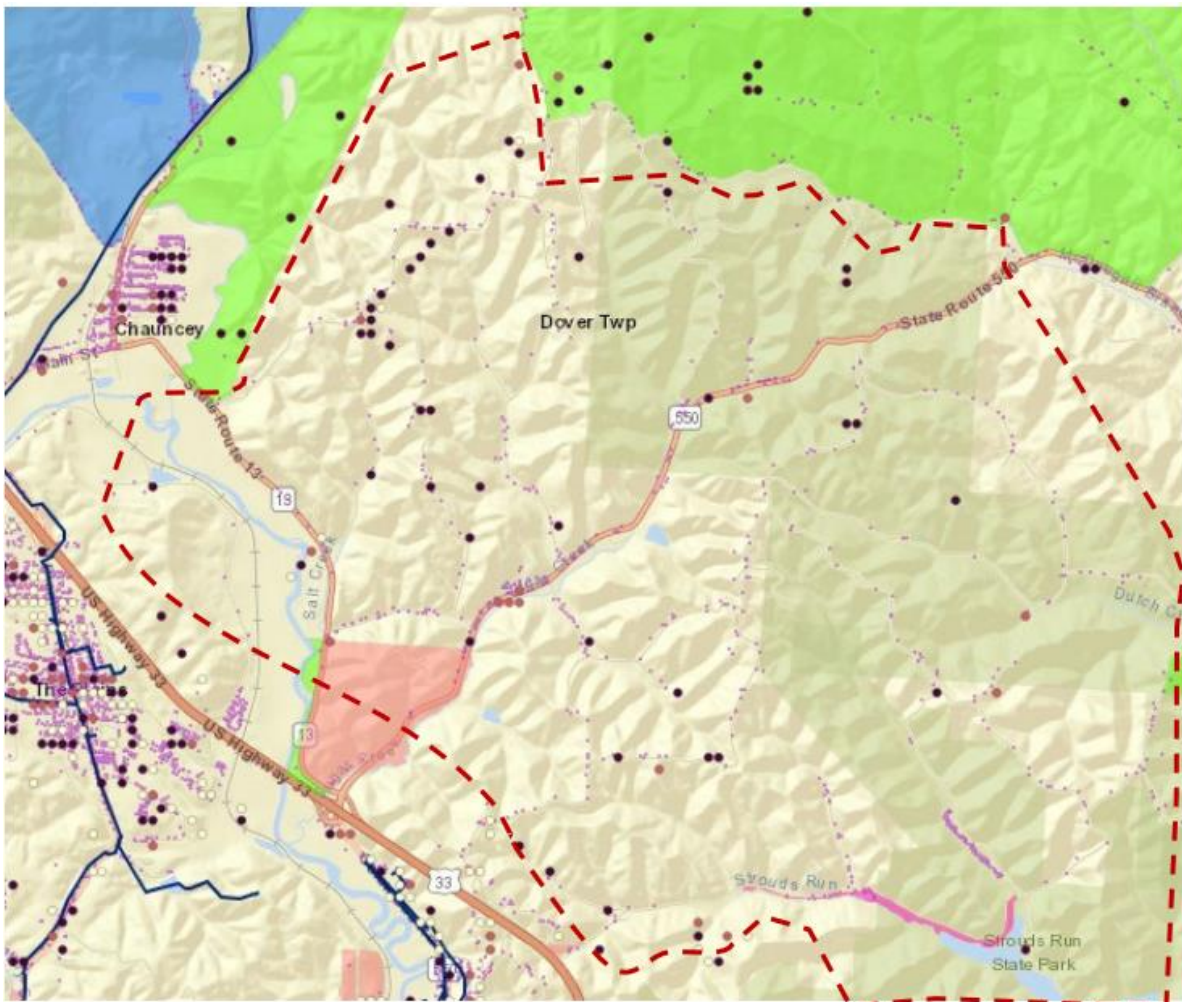
Potential Project Area 5: East of Athens

This approximately fifty square mile area to the east of the city of Athens is an area in which we expect significant interest from ISPs. While the terrain is quite rugged, the easy access to middle mile fiber that runs along the US 50/33 highway that bisects the area should make this an attractive prospect for both new and established ISPs. Available survey data, both through Connecting Appalachia and our own survey, demonstrates that households across the area are very interested in gaining access to broadband services. In spite of the close proximity of fiber belonging to Horizon Fiber, there are many communities in this area without any service options. Another aspect of this potential area that will interest ISPs is the inclusion of a large portion of the commercial area along East State Street. While the commercial properties in this area do have access to service, our Ookla data shows that the often overlooked residential units in this area do not. The opportunity to offer high-speed fiber connections to the commercial entities along this important commercial corridor may well be a useful incentive for ISPs.
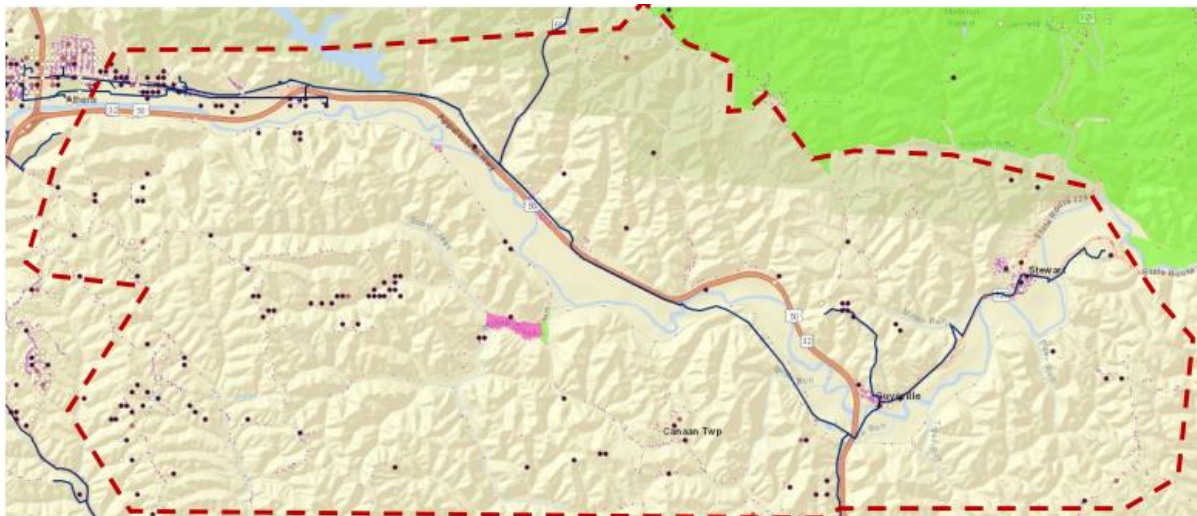

The area also includes important village hubs Canaanville, Guysville, and Stewart, the latter of which is home to the Federal Valley Resource Center and the nearby Federal Hocking High School. During the height of the COVID-19 pandemic in 2020, the Federal Hocking School district faced significant challenges with remote education. This was in no small part down to the lack of available broadband connections for the communities the district serves. It is important to note that residences already served inside this area are largely served by either Charter/Spectrum or Frontier. Surrounding parts of the area are RDOF census blocks secured by Charter/Spectrum and it is reasonable to assume that should the company expand in the manner they have indicated, some of this project area may be offered service by them. Constant service issues have beset areas currently served by Frontier, and those looking to obtain service by Frontier have repeatedly been told that currently the company does not have the capacity to increase the number of customers it has in the area.

Potential Project Area 5 formed part of the submission made by BroadbandOhio to the NTIA's Broadband Infrastructure Grant program. The request was made in partnership with the ISP Gig Ohio. The request for $5m from the NTIA would allow for the construction of a fiber to the premise network in the area. Due to the oversubscribed nature of that grant request, the potential for securing these funds would seem be low. The lack of a current footprint in the county and the small sale of its other operations would also seem to work against Gig Ohio's chances of securing these funds. To this end, Athens County should continue to seek other solutions to securing access to broadband for the residences and businesses in this area. The fact that BroadbandOhio included this area as one of approximately thirty projects it submitted to NTIA suggests that the efforts by the community to attract interest in projects in Athens County have met with some success. Moreover, that Gig Ohio chose this area further indicates the attractiveness of this area for broadband expansion.

Potential Project Area 6: Surrounding Coolville

Potential Project Area 6 involves approximately sixty miles of Carthage and Troy Townships in the far eastern end of the county. The village of Coolville offers the most densely populated area in the county. There is easy access to Horizon Fiber middle mile fiber. This area also includes the village of Stewart and the Federal Hocking High School. In creating this project area, census blocks secured by LTD Broadband and Charter/Spectrum were excluded. It is the view of the Athens County Broadband Coordinator that LTD Broadband is unlikely to proceed with any level of expansion in the areas it secured. The lack of any
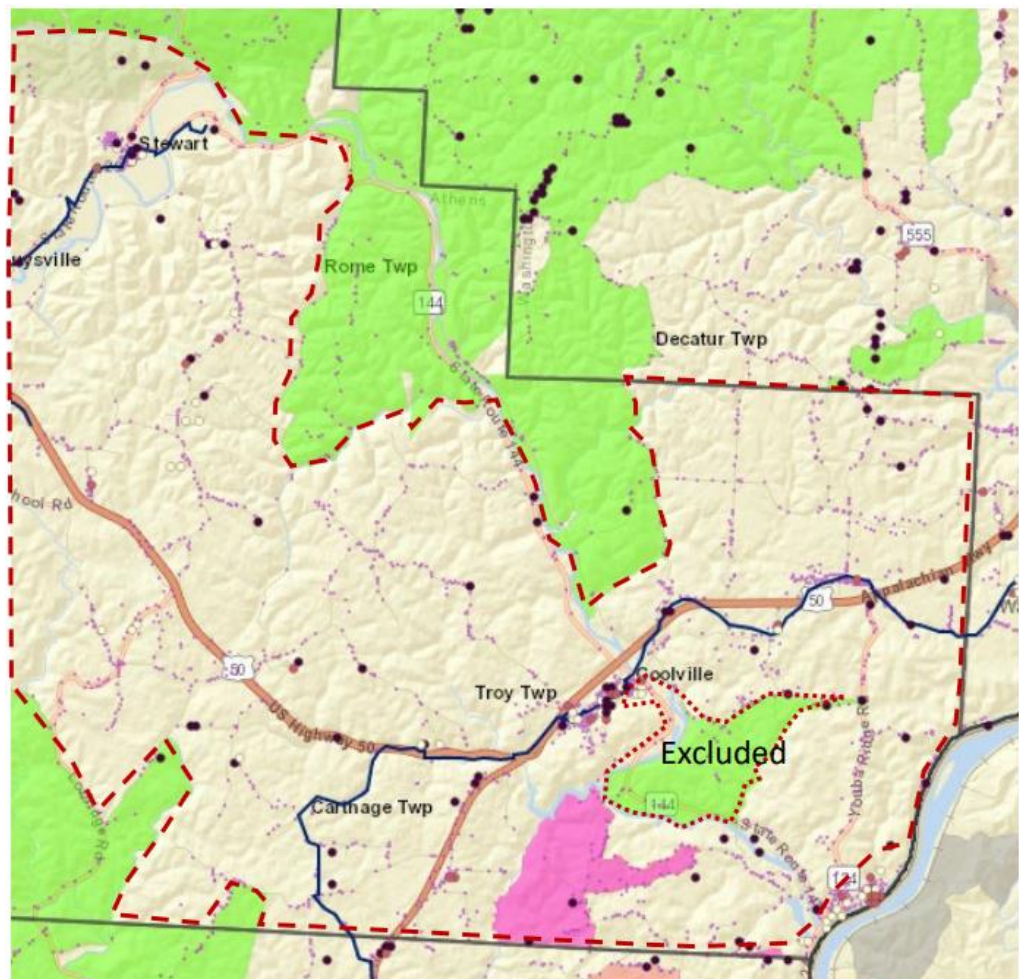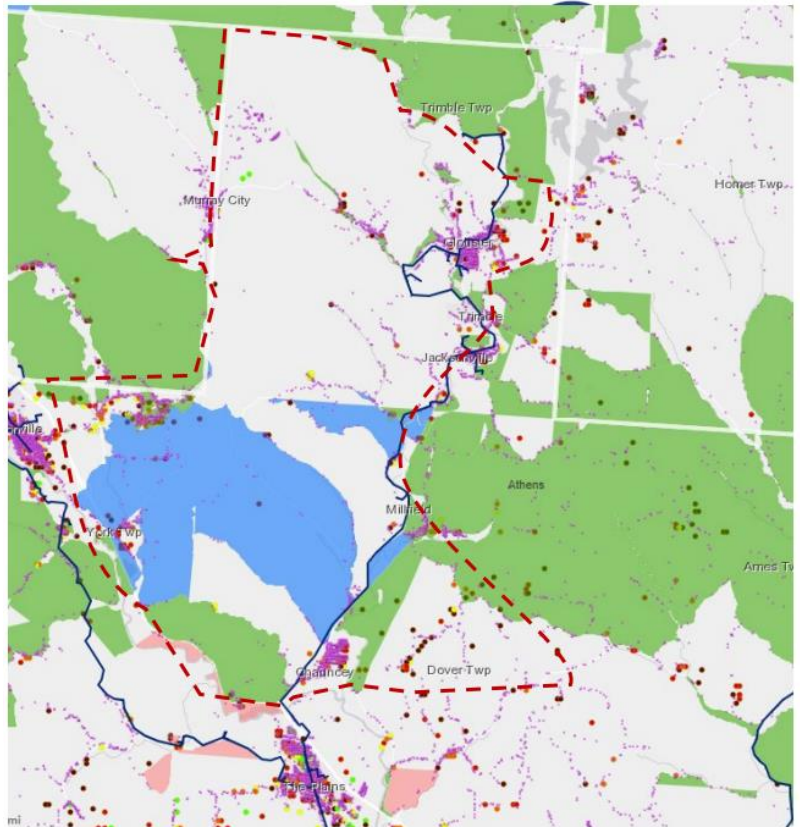
other footprint in the county coupled with the fact that the areas in question have a low population density suggest that for LTD Broadband to expand in this area would not serve the interest of that company, , the communities in that live there. Those areas adjacent to those secured by Charter may very well be of interest to them as they look to expand in the county. Windstream, which has customers in this area, has indicated to the Broadband Coordinator, an interest in expanding its service network in this area. This would primarily be through fixed wireless connections with fiber backhaul.

Potential Project Area 7: Northern Panhandle

The final project area covers approximately fifty square miles in the panhandle northern part of the county. The terrain is rugged, but along the State Route 13 corridor, there are thousands of households and several important village hubs, including Chauncey, Trimble, Jacksonville, and Glouster. This area faces significant economic distress and therefore improved access to broadband has the potential to offer economic growth opportunities to a region badly in need. The area is fortunate to have good access to middle mile fiber with both Spectrum and Horizon Fiber having assets in the area. Based on our research and the research conducted by Buckeye Hills Regional Council, however, significant service issues persist. The main provider in the area is Nelsonville TV Cable. As a result of its service options, most of the area did not feature in the RDOF auction. Those that were won by smaller providers, Mercury Wireless and LTD Broadband, disconnected from their traditional footprints and not offering any sizeable market share, seem unlikely to be completed. In spite of the opportunity to return these census tracts to the FCC, it appears as if neither company has done so. Charter has indicated a willingness to expand beyond the RDOF areas it has secured in the area. Due these factors, and the presence of Nelsonville TV Cable as an operator in the area, further development of high speed broadband options in this project area are complicated.

Amesville Appalachian Regional Commission Proposal

In September 2021, with the aid and support of the Athens County Broadband Coordinator, Buckeye Hills Regional Council and the Governor's Office of Appalachia in the Department of Development, requested funding from the Appalachian Regional Commission (ARC) to support the construction of a fiber to the home network in the village of Amesville and surrounding areas. In December, 2021, ARC approved the request.

In the Amesville area, rural broadband quality internet connection is effectively nonexistent. Several ISPs offer service, most prominently Frontier Communications, however, the network in the area is almost entirely reliant on outdated copper phone lines. This lack of connectivity has had significant impacts on the village and its residents, from limitations to economic opportunities to raising safety concerns as the area also suffers from a lack of wireless phone signal. As a remote village in an area that often floods, this lack of connection to the broader community makes Amesville a far more isolated community than they should be. The pandemic has only exacerbated these concerns. Moreover, as remote work becomes more common in the area and more important as an economic development tool, the lack of connectivity has posed an undue burden on the residents and businesses in the village.

In 2019, Amesville, OH had a population of 158 people with a median age of 56.1 and a median household income of $53,125. Between 2018 and 2019 the population of Amesville, OH grew from 144 to 158, a 9.72% increase and its median household income grew from $49,375 to $53,125, a 7.59% increase. However, Amesville' s 2019 median property value decreased $87,500 by 4.89% from the 2018 valuation. The economy of Amesville employs 84 people. The largest industries are Manufacturing (24 people), Educational Services (14 people), and Health Care & Social Assistance (12 people).

The goal of this project is to bring broadband connection to the community and surrounding areas and bring real economic and social opportunities to the 124 households within the project area. Real potential exists for those families to earn additional income by either tele-working or increasing sales of their home-based business. Furthermore, the sixteen local businesses will be able to expand their connections in and out of the communities allowing for increase sales. Amesville area's need for broadband bandwidth (speed and capacity) is immediate and will continue to expand dynamically for the foreseeable future. Without adequate, available access to broadband in rural areas of Athens County, increasing and diversifying the business sectors and reducing the digital divide will be difficult at best. As a part of this project, the Athens County Broadband Committee will assess Amesville' s Digital Literacy and then develop and implement activities to assure that the Amesville users take full advantage of the ARC and County investments.

The project see an ISP design and install a fiber-to-premise network in the Amesville, Ohio area. The project is intended to provide a minimum of 100/20 Mbps service to approximately 90 subscribers along the 9.8 mile installation route. To bring this about, Athens County has entered an agreement with HAPCAP to administer the grant. The Department of Development, the assigned basic agency, has hired Appalachian Management systems to oversee the disbursement of the grant. It is intended to prepare

and issue a Request for Proposals to help the County identify the best possible provider to build the network. The successful provider will supply at least 100/20 Broadband Data Megabits per second service to 4 Community Anchors, 1 open hotspot, 16 small businesses and 124 residences along the route, where service does not exist or are underserved. The project goals are to provide a state-of-the art broadband network in the unserved and underserved Amesville area, that will support the community anchor organizations, drive job creation, promote innovation, and expand markets for local businesses; serve the ongoing and growing needs of local education systems, health care systems, public safety systems.

The project will be owned by Athens County and overseen on the county's behalf by Hocking Athens Perry Community Action. The successful Internet Service Provider(s) or other organization(s) responding to the competitive proposal will be expected to deploy a network that meets the eligibility requirements set forth in the ARC requirements. The County will only contract with a successful partner who demonstrates a clear and achievable plan to deliver high-speed, reliable, and affordable broadband communications services in the investment area.
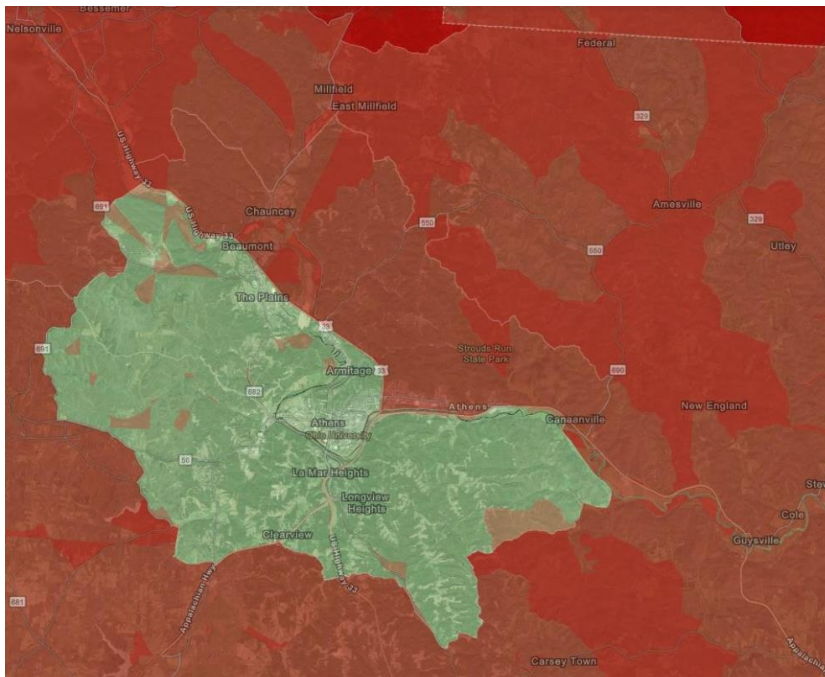
Although the initial offering will be a 100/down and 20/up, the final design will make sure the network sustains a symmetrical 100 Mbps of upload (100/100 Mbps). It is imperative that the same fiber network able to deliver 100/100 Mbps is actually also capable of also delivering 1000/1000 Mbps and 10,000/10,000 Mbps with affordable upgrades to the hardware. With middle mile fiber and improved cable network in the immediate area, this strategy assures long term potential network growth for this area.[31]

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[31] ARC submission

RECOMMENDATIONS

In consideration of the information gathered in this strategy and of the potential future developments, the recommendations below are intended to further the development of broadband connectivity, access, and utilization in Athens County in a strategically thoughtful way. A re-imagined Athens is possible where these broadband developments allow for greater economic development, social interactions, healthcare outcomes, and cultural access for the communities of Athens County. Moreover, without these broadband developments, the risks to the county are severe, including being left further behind economically and a growing brain drain as residents seek out other parts of the country with better broadband options. There is little doubt that as a result of this unique moment where broadband development has received significant bipartisan support that major changes in the broadband landscape will occur. As a result, the digital divide that plagues America today will become much simpler as one of communities with and without broadband access. Those left behind face a stark future.

Based on these conclusions, HAPCAP has proposed the below set of goals and strategies to achieve them. The overall strategy is based on the realization of a Reimagined Athens where with the aid of an effective and reliable broadband network our communities are able to use the strengths of our region to compete alongside the rest of the world. These goals are designed to shape the future work of the Athens County Broadband Coordinator and to inform the guidance of the Athens County Broadband Advisory Committee. They are crucial to ensure that the county can secure the best possible broadband outcome that meets the community's needs. Moreover, the addition of affordability and digital inclusion to the infrastructure equation is crucial to ensure that the investment in Athens County broadband can provide the economic, social, and cultural potential offered by better broadband connections.

GOAL: INFRASTRUCTURE - All county residents should have viable broadband connection options.

- ➤ **Strategy: Guarantee all activity by ISPs related to the State's Residential Broadband Expansion Grant program, RDOF, ARC or any other funding sources is undertaken and completed.** The Athens County Broadband Coordinator will make it a priority in 2022 and 2023 to monitor the State's Residential Broadband Expansion Grant program and any other grants awarded to ISPs to construct broadband infrastructure in the county. The state grant program includes a two-year build requirement and ensuring that the selected ISPs complete their projects on schedule and as proposed will be crucial. There may not be another opportunity like this to develop the broadband infrastructure and all other potential grants, both state and federal, will depend largely on the outcome of this grant program.

- ➤ **Strategy: Bring broadband connections to areas not covered by the state's grant program.** In the aftermath of the state's grant program, the Athens County Broadband Coordinator will identify any unserved or underserved areas of the county that have not been claimed by an ISP from this process. Once these areas are identified, the coordinator will strategize with local leaders – mayors, trustees,

commissioners – a way to entice an ISP to provide service and/or promote alternatives like Starlink. This will likely include the use of local ARPA funds and identifying appropriate federal grants.

➤ **Strategy: Continued advocacy with future broadband funding opportunities.** The Athens County Broadband Coordinator and the Athens County Broadband Advisory Committee will continue monitoring and assessing the value of pursuing all potential government broadband funding opportunities.

➤ **Strategy: Continue providing advice and guidance to local officials on broadband issues.** The Athens County Broadband Advisory Committee will provide guidance to mayors, commissioners, township trustees, and other officials charged with making these decisions about ARPA-funded broadband projects.

GOAL: AFFORDABILITY – Economic barriers should no longer prohibit community members from accessing the broadband network.

➤ **Strategy: Increase awareness of, and applications to the Emergency Broadband Benefit / Affordable Connectivity Program.** The Athens County Broadband Coordinator will work to increase awareness in the county of the Emergency Broadband Benefit program and its news guise as the Affordable Connectivity Program. With the coordinator's help HAPCAP can provide help to local residents eligible for the program. This program, will likely become a permanent fixture in the tools of social service organizations efforts to bring services to low-income households.

➤ **Strategy: Identify other sources of funding outside of the Affordable Connectivity Program to help low-income and other residents of the county have access to a broadband connection.** The coordinator will help identify other potential funding sources to offset the cost of broadband connections. One example of this is the Home Relief Funds made available due to the pandemic that can be used to pay internet subscription fees.[32]

➤ **Strategy: Continue the development of positive working relationships with ISPs operating in the county.** The coordinator will continue working with ISPs to promote their low-income packages to eligible residents.

➤ **Strategy: Increase access to affordable devices.** The Broadband Coordinator will continue to develop relationships with organizations like PCs for People and seek out other opportunities to provide access to community members to affordable devices.

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[32] https://hapcap.org/relief

GOAL: DIGITAL INCLUSION/LITERACY – All county residents can successfully and effectively utilize the broadband network for work, leisure, health, and social services.

➢ **Strategy: Assess the digital inclusion resources already available in the community.** A key goal of the Athens County Broadband Coordinator and the Athens County Broadband Advisory Committee in the coming year will be to make a deeper assessment of the digital inclusion opportunities available in the county.

➢ **Strategy: Develop specific strategy for the county to become a Digital Ready Community.** Over the course of the next six months, with the input of local stakeholders across a variety of sectors, the Coordinator should develop a strategy to develop Athens County into a digital ready community.

➢ **Strategy: Provide educational support to community members on basic broadband connection skills.** The Broadband Coordinator can be a useful resource for local communities to help remedy simple-to-fix problems often faced by internet users. These include router resetting, modem setup, and identifying user error problems. This help can be provided through either an online or an in-person community meeting format.

➢ **Strategy: Development of a one-stop online presence for broadband issues for the community.** Develop a website that provides information and advice to community members on all-things related to broadband. This can include information on ISPs operating in the area, advice on selecting a service and on equipment.

➢ **Strategy: Support workforce development efforts in the county and region.** A key aspect of digital inclusion that allows for broadband deployment to have a real economic development impact on a community is the up-skilling or enhancement of the skills of the local community to be a more digitally literate and skilled workforce. The work being done by the coordinator is crucial to ensure that workforce development efforts and digital training are connected and highlighted.

➢ **Strategy: Support community-led remote work development.** As numerous entities across the county are working toward the development and promotion of the area as a remote work hub, the coordinator can help bring these efforts together in a coordinated manner. Moreover, for these efforts to succeed it will be essential for the infrastructure work that will improve the broadband network to move ahead. The coordinator can provide timely updates on this work to the community which will help with the promotion and developments of the various remote work initiatives.

GOAL: ADVOCACY – Ensure the awareness of the broadband issues facing Athens County continue to get the attention of local, state, and federal leaders. Furthermore, ensure that the local community has a high level of awareness regarding the broadband initiatives that are ongoing.

- ➢ **Strategy: Provide continued advocacy on the broadband challenges facing Athens.** The current focus on rural America's broadband challenges will not continue without continued advocacy on the parts of local leaders and officials. Having a countywide broadband coordinator places Athens at the center of that conversation and allows HAPCAP to play a leading role in advocacy efforts. Already the Broadband Coordinator has engaged in advocacy efforts in a number of areas and it is important for that work to continue.

- ➢ **Strategy: Promote a "Re-imagined Athens."** The importance of delivering broadband connections to the residents and businesses of Athens should not be understated. Without this development, Athens faces a bleak economic future. With a broadband connected community and digital ready community, however, the prospect of not merely catching up is on the table. Indeed, a Re-Imagined Athens where we are able to use the strengths of our region to compete alongside the rest of the world is a feasible outcome. To this end, the coordinator will spend time reminding local, state, and federal leaders and community members and groups of the potential that broadband connections can provide.

- ➢ **Strategy: Develop an Athens County Broadband Navigator Website.** As there is so much activity and interest in the broadband space, there is a need for website portal providing access to broadband information to the community. The website would cover a variety of areas, including information about available ISPs in the county and guidance on choosing a plan. Furthermore, this broadband portal should act as a one-stop location for other broadband issues including access to digital literacy opportunities and subsidy opportunities. As a result, HAPCAP can continue its role of providing the community with access to resources. It should be the responsibility of the coordinator to maintain and update the website.

ATHENS COUNTY BROADBAND GOALS

	Infrastructure	Affordability	Digital Literacy
Short Term	• Identify current network properties • Identify all current projects working to improve the network • Decide on broadband priorities • Identify appropriate funding opportunities	• FCC Emergency Broadband Relief • Further legislative relief • Investigate what is an affordable rate for internet	• Identify digital literacy opportunities in the county • Identify digital literacy goals
Interim Short to Medium	• Identify gaps in network • Engage community on broadband projects • Engage ISPs on future construction plans • Explore potential alternatives where fiber to home may not be feasible	• Survey community on affordability • Engage ISPs on paths to affordability • Investigate device accessibility • PCs for People • Investigate various broadband models that allow for lower subscription costs	• Identify gaps in digital literacy programs • Geographic • Programs by target demographic – jobseekers / youth / elderly • Identify agencies willing to provide programming • Identify sources of funding for programming • Examine device availability and servicing
Medium Term	• Prepare strategy to fill network gaps • Design county/regional broadband network • Begin implementation of localized projects	• Promote community awareness of various subsidy programs – Federal Communications C, Lifeline • Create online platform for community to determine eligibility for programs	• Expand current digital literacy opportunities • Create central online guide to local digital literacy programs
Interim Medium to Long	• Maintain relationships with major ISPs regarding fiber deployment • Committee issues regular updates to local and state officials on progress of network development	• Various local broadband models being implemented that allow for reduced costs	• Continuous local monitoring of community needs around digital literacy
Long Term	• Fast last mile fiber Broadband constructed • Communities outside of fiber network served by high speed fixed wireless • Starlink available where needed	• Easy access and engagement with affordable, reliable, and fast broadband throughout the community • Continued Federal/State funding for subsidy programs • Increased economic activity solving affordability concerns	• Variety of opportunities for targeted Digital Literacy • Promoting the area as a digitally literate and prepared community and workforce
Goal	All county residents have viable broadband connection options.	Economic barriers no longer prohibiting community members from accessing the broadband network.	All county residents can successfully and effectively utilize the broadband network for work, leisure, health, and social services.

References

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Appendix A

Athens County Broadband Advisory Committee Members

Paul Isherwood - Athens County Broadband Coordinator

Kerry Pigman - Athens County Foundation

Kelly Hatas - Hocking Athens Perry Community Action

Jessica Stroh - Hocking Athens Perry Community Action

Mollie Fitzgerald - Athens County Economic Development Council

Nick Tepe - Athens County Libraries

Chris Chmiel - County Commissioner

Steve Patterson - Athens City

Sam Miller - Buckeye Hills Regional Council representative

Amy Renner - Mayor of Chauncey

Gary Goosman - Mayor of Amesville

April Stewart – Athens City School District

Laurie McKnight - Workforce Development Board for Area 14

Megan Riddlebarger – Corporation for Ohio Appalachian Development

Ben Lachman - Remote Work and Tech Entrepreneur

Eli Flournoy – The Sugarbush Foundation

Carly Fitz – Buckeye Hills Regional Council, Broadband Fellow

Ryan Collins – Buckeye Hills Regional Council

Nathaniel Berger – LIGHTS Regional Innovation Network

Jason Jolley – George Voinovich School of Leadership and Public Service

Chelsea Young – Ohio Health