# Every day, we're falling behind in Appalachian Ohio': Lack of broadband hurts rural areas

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AMESVILLE —Heather Mitchell is overwhelmed.

The single mom of three boys struggles just to send a text message.

She and her sons –– Micah, 6, River, 4, and Wren, 2 –– have been living without consistent internet access in Athens County for nearly eight years. The family moved to Amesville, a village about 80 miles southeast of Columbus and 13 miles northeast of Athens, about a year and a half ago.

"Where we're at, there's no provider," Mitchell said.

Forget a Wi-Fi connection: If the 33-year-old wants to send a text, she has to huddle in the corner of her house. Outside, what looks like a triangular cone is attached to a baking sheet from a toaster oven and tacked onto a skinny pole.

The contraption, a Verizon Wireless LTE booster, strengthens the signal of Mitchell's phone —one strained text message at a time. Her father added the extra scrap of metal from the toaster oven so they could get a better signal.

The Mitchells are among hundreds of thousands of families challenged by modern economic, education and health-care systems while living without internet access in rural Ohio. COVID-19 has exacerbated the issue, but the problem has been persistent in Appalachia for decades.

Sitting outside, with southeastern Ohio's rolling hills in the backdrop, Mitchell said she is content to live an unplugged lifestyle.

But lack of access is exhausting.

Mitchell juggled her eldest son's transition from in-person to remote learning this past spring while preparing for the upcoming school year, attempted to file unemployment for the part-time job she lost, and managed clients in her other position at a nearby rape crisis center —all without steady, or barely any, access to the internet.

She is constantly frustrated by everybody's suggestion to just move closer in town, where there's better cellphone reception.

Rent in town, Mitchell said, would cost at least twice as much as they pay for their three-bedroom, two-bath country home on Henry Road outside Amesville proper.

"This is a low-income area, even as a professional …I don't make enough to afford a house the size my family needs in town," she said. "So my options are really limited."

## Defining the digital divide

In 2018, advocates first began discussing the problem in earnest, but no one really understood just how sweeping it was, Misty Crosby said.

Crosby, director of the Buckeye Hills Regional Council, a southeastern Ohio coalition of local governments that serve eight Appalachian counties, explained that in order for the Federal Communication Commission to determine who has broadband service, internet carriers file mapping data with the agency twice a year.

"A lot of reports were being filed to the FCC, saying areas (in rural Ohio) were covered," she said. "And yeah, it says we have service, but we don't actually have service."

So in 2019 Buckeye Hills applied for a grant from the Appalachian Regional Commission to conduct an eight-county study –– in Athens, Hocking, Meigs, Monroe, Morgan, Noble, Perry and Washington counties –– in partnership with Ohio University and the Athens County Economic Development Council.

The results showed that 80% to 90% of households (in areas with 20 or fewer households per square mile) have no access to broadband. The council estimated that more than 340,000 households, approximately 1 million residents, in Ohio do not have any internet access.



FCC spokeswoman Annie Veigle told The Dispatch that the number of rural Americans with service to the agency's standard broadband speed, 25 megabits per second for

downloads and 3 megabits per second for uploads, or 25/3 Mbps, has more than tripled from 2016 to 2018.

The agency also has set aside billions of dollars in federal programming to incentivize internet providers to expand rural America's internet access.

"Since taking office, Chairman (Ajit) Pai's singular focus on closing the digital divide has produced real results for Americans," the FCC wrote in a statement.

But Buckeye Hills' broadband consultant, Tom Reid, said that FCC maps often overstate service coverage and that the agency does not independently verify the data provided by the internet carriers and used to compile the maps.

According to an example from the study, internet carriers including Frontier Telecommunications can claim they serve 14 households in a single census block, spread out over 740 acres in Meigs County.

But in reality, Frontier provides coverage to only one household in that census block, at a speed of 10/1 Mbps, significantly lower than the FCC's broadband standard.

This overstatement can prevent certain regions from becoming eligible for the FCC's connectivity programs because the agency will assume the area is covered, Reid said.

In a statement, Frontier spokesman Javier Mendoza told The Dispatch the company "understands the unique challenges of serving rural communities," but did not directly answer a question about the discrepancy between Buckeye Hill's findings and the data Frontier submits to the FCC about how many households it serves in a specific census block.

"This problem is really this bad and vast," Crosby said. "There's a sense of urgency here ... every day, every day, we're falling behind in rural Appalachian Ohio."

## Discrepancy in data

In 2015, former FCC Commissioner Tom Wheeler updated the agency's definition of broadband to 25/3 Mbps.

But Crosby and Reid say 25/3 Mbps is not an appropriate benchmark for the 21st century. In Franklin County, almost 100% of households in Franklin County can access internet speeds of 100/10 Mbps.

"We believe rural, Appalachian Ohioans deserve the same speeds and the same reliability as those that are in more-populous areas of the country," Crosby said.

It's difficult to watch Netflix and also check your email or download a file using the FCC's standard bandwidth connection, the Buckeye Hills director said.

"So imagine a household that's got four users, or five users or children trying to go to school and parents trying to work from home," Crosby said, "And they're all trying to use a 25/3 Mbps bandwidth connection. It's just not doable."

Rep. Bill Johnson, R-Marietta, who serves Appalachian Ohio in Ohio's 6th congressional district, spanning from Columbiana to Scioto counties, agreed.

"I daresay there is not a lawmaker or decision maker from the president all the way down to township commissioner that does not understand," he said, "that in the 21st century, access to high-speed internet is as important to quality of life as plumbing, water and electricity are."

Without that access, Amesville Mayor Gary Goosman fears his village will fall behind.

In Amesville, which recorded a population of 154 residents in the 2010 U.S. Census, there are two main internet providers according to the FCC: Frontier and Hughes Network Systems, a satellite company.

But Frontier is basically "the only game in town."

"You could go with satellite," Goosman said, "But Hughes Net is very expensive and performance is very limited."

Goosman said Frontier offers Amesville only DSL internet, a slight upgrade from dial-up. Residents who use it have to connect a cable from a phone wall jack to their computer to get a signal.

But any time a tree gets knocked down, landlines are accidentally cut or a snowstorm hits, the connection is lost.

Years of frustration led Goosman and the Village Council to pass an official complaint in September 2019 condemning Frontier and requesting the FCC and state of Ohio "intervene on behalf of the citizens and businesses of Amesville and the surrounding areas" and address the discrepancy in mapping data.

Rep. Johnson said he's frustrated by the FCC's reliance on data provided by internet carriers and measured by census blocks.

"Using census blocks in rural America, where people live 5 to 10 miles apart, you might have an entire county or multiple counties that (comprise) a census block before you have the requisite number of people," he said.

That system has kept villages such as Amesville unable to qualify for FCC programs such as the Rural Digital Opportunity Fund (RDOF), a $20.4 billion investment from the federal agency.

RDOF will provide subsidies to internet carriers and incentivize them, through two auctions (one that begins Thursday and another next spring), to expand coverage to more than 6 million homes and businesses.

But Frontier petitioned the FCC to exclude dozens of census blocks from the upcoming auction in Ohio, including Amesville, on the basis that it already serves the area.



Buckeye Hills' consultant Tom Reid said the internet carrier claimed to serve all the census blocks it wanted to exclude from the auction at the FCC minimum speed of 25/3 Mbps, but the council proved otherwise.

Reid wrote a letter to the FCC, rebuking Frontier's challenge. The petition would be "devastating, further delaying crucial broadband upgrades and likely deterring bidders from participating," he noted.

In June, the FCC rejected Frontier's challenges.

A spokesperson for the agency told The Dispatch that "the updated eligible areas map reflects a lot of eligibility in the vicinity of Amesville."

But the updated map still does not include the village of Amesville as a town that internet carriers can bid on and receive funds to expand coverage there.

"It is the FCC, not Frontier, which identifies the specific areas that qualify for funding to enhance broadband services," Frontier spokesman Mendoza wrote in a statement to The Dispatch.



## Solutions: Looking across Appalachia

In March 2014, Southeast Tennessee Development (SETD), a nonprofit organization based in Chattanooga, held a summit about the lack of broadband in its corner of the hills.

The group organized three panels: define the issue, address legislative challenges and outline solutions. SETD invited telecommunications companies, local and state politicians, rural residents and representatives from electricity and telephone co-ops who wanted to offer their members broadband, executive director Beth Jones said.

"That really got the discussion rolling," she said, "And in conjunction with that we started mapping and collecting surveys with everyone in our region."

The team also found an internet connectivity champion in former Republican U.S. Sen. Bob Corker.

Corker pressured internet carriers and pushed Tennessee Gov. Bill Haslam, also a Republican, to invest millions of dollars into accessibility grants and to deregulate the broadband market, allowing co-ops to start offering internet services to members in 2017.

Cooperatives are driven by values, not profit, Jones said. They are controlled by the members they serve, which made them the perfect candidates to offer broadband in areas where internet providers had never faced competition.

The Chattanooga Electric Power Board, she said, led the charge, using funding from the Department of Energy and FCC to build a fiber-optic smart grid out into low-income neighborhoods and offer internet service at $49/month, well below other providers.

SETD's efforts caught Gov. Haslam's attention.

In 2017, Haslam signed the Tennessee Broadband Accessibility Grant Program into law, which has allocated $45 million in broadband deployments across the state in the past three years, The Chattanooga Free Press reported.

A recent study in government assistance highlighted Tennessee's grant program among nine other states that provided a roadmap to increase accessibility in the rest of the country, according to the Pew Research Center.

Jones is a big believer that Chattanooga's success can be replicated, but it starts with a plan.

"A comprehensive plan has to not only assess who doesn't have it," she said, "But why don't they have it? And who is already out there that can provide it? And what will it take (to achieve that)?"

# Future of rural broadband in Ohio

Ohio has 25 electric co-ops that serve 77 mostly rural counties under <u>Ohio's Electric Cooperatives</u> (OEC).

And while only one of those co-ops offers broadband, OEC's Director of Government Affairs Marc Armstrong said the members have asked them to expand services.

In June, the Ohio House of Representatives passed <u>House Bill 13</u>, which would designate $20 million for providers through the Residential Broadband Expansion program and enable electric cooperatives to apply as well.

The senate must decide whether to pass the bill before the end of the year, Armstrong said.

"We support the funding," he added. "But we would like to see the state make an even greater investment."

One provision in House Bill 13, a rule regulating how much cooperatives charge telecommunication companies to rent their electrical poles, concerns OEC's CEO Patrick O'Loughlin.

That revenue allows cooperatives to provide utilities at a subsidized cost to their members. But in <u>testimony to the Ohio House Finance Committee</u> O'Loughlin warned the provision would ensure co-ops won't be able to fully recover the rental cost from private carriers.

"If given this handout," he wrote, "There is nothing to suggest that cable/telecom providers would then offer new internet access to any Ohioan."

If Ohio wants to expand access to those without any internet as well as those with 25/3 Mbps or less in a meaningful way, Buckeye Hills' Reid said, House Bill 13 is just a start.

"The state needs to run 45,000 miles of optic-fiber cables to replace the decrepit copper wires lying throughout Appalachia Ohio," he said. "It will take $2.3 billion to reach, but it will also create 9,000 jobs and provide a $1 billion increase in GDP."

In order to make a viable business model, $1.7 million would also need to be subsidized to rural residents, Reid added.

Gov. Mike DeWine and Lt. Gov. Jon Husted have made broadband connectivity a priority in their administration.

They awarded nearly 1,000 school districts broadband education grants last month, allowing schools to purchase mobile hot spots and internet-enabled devices.

Husted is also the founder and director of InnovateOhio, a department dedicated to technological advancement. In December 2019 the administration released Ohio's broadband strategy through InnovateOhio, acknowledging that access is a "critical barrier" for a million Ohioans.

But money remains the number one obstacle to unfettered connectivity, Husted said in an interview with The Dispatch.

"How do you provide services to all of the people who don't have it and the private sector won't provide it?" Husted asked.

He said the state is considering a variety of options including bidding on federal grant money to provide rural residents subsidies. JobsOhio is also working with private sector partners on how they might expand coverage and InnovateOhio is working with new satellite technologies such as Starlink, a SpaceX initiative.

They are aggressively pursuing everything because Husted wants to make sure tomorrow's investment won't end up inadequate five years later.

"In the dream world we would be able to work with USDA and the Economic Development Administration and FCC along with our state partners, public and private, to develop a plan and have laws and regulations that would make that easier to happen," John Carey said.

But Carey, director of the Ohio Governor's Office of Appalachia, said communities with accessibility plans are going to be able to reach federal funding first.

"We have to be realistic about what can and can't happen," the director added.

Will that require the federal government to step in and provide broadband assistance to Appalachia, similar to how President Franklin D. Roosevelt's New Deal-era programs brought electricity to the region nearly a 100 years ago?

Husted said the answer is complicated.

"The federal government's going to have to be involved from the standpoint of providing regulatory relief," Husted said. But he dismissed that a long-term solution in Ohio would require "a New Deal kind of thing."

## Amesville's horizon

In September Heather Mitchell began loading jump drives onto the family computer for her preschooler and first-grader, squeezing in a couple hours for her boys to learn before bedtime.



"Their teachers have lesson plans and videos on the jump drive," she said. "They do an assignment and then I take a picture of it on my phone and email it to them when I go to work."

"There's no version of this that's not labor-intensive," she added.

Amesville Mayor Gary Goosman is still frustrated by the lack of state or federal attention his village receives. There are no plans he's heard of to expand broadband out into the country or add towers that would increase cell service.

He hasn't talked much with Buckeye Hills about becoming eligible for the FCC's spring auction —the second half of the agency's $20.4 billion investment to provide subsidies to internet carriers.

"At some point we'll seriously decide," he said.

Mitchell wishes central Ohioans understood the constraints the lack of internet access puts on otherwise hardworking Appalachians.

"I think it's probably inevitable at some point that we'll have to move," she said.



Ceili Doyle is a Report for America corps member and covers rural issues in Ohio for The Dispatch. Your donation to match our RFA grant helps keep her writing stories like this one. Please consider making a tax-deductible donation at https://bit.ly/3fNsGaZ.

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