



July 1, 2019

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Pa. Sen. Katie
Muth read a
letter from a
former
homeless man
on the Senate
floor last week
now she's
gone viral

State Rep. Lynda Schlegel Culver (R-Northumberland) frequently travels around the 108th District and back and forth from Harrisburg. She routinely anticipates the areas where she knows the cellular service is going to drop. "For the most part, you have cellular service," she said. "There are areas that are known not to have it and you know that ahead of time. Does it stop me from calling somebody and I know I'm driving into it? Nope, because every time, I hope maybe this time I'll make it through."

Culver specifically mentioned the area around Route 890 and the Hamilton Underpass leading outside Sunbury. She also noted Route 4005 between Snydertown and Riverside. Federal maps for cellphone dead zones show that Northumberland, Snyder, Union and Montour counties are 100 percent covered, but Valley mobile phone users know that's not true. A spokesman for the Federal Communications Commission also said there is no overview of cellphone tower maps showing their locations from cellular providers.

The Federal Communications Commission <a href="maps">maps</a> for Nationwide LTE Coverage and Nationwide Mobile Wireless Coverage for 2017 put the four-county area as 100 percent covered. The first map shows the availability of 4G LTE service, based on company filings with the FCC. The second shows coverage of 3G service and above. LTE stands for Long Term Evolution and is sometimes referred to as 4G LTE. It's a standard for wireless data transmission that allows you to download your favorite music, websites, and video really fast — much faster than you could with the previous technology, 3G.

Personal experiences and anecdotes say that the rural four-county area has plenty of dead zones. There are websites and apps that show reports of dead zones, such as <u>deadcellzones.com</u> and OpenSignal. They rely on users to report their personal experiences. There are also websites and apps that report cell tower locations, such as <u>CellMapper.com</u>, but it is also a crowd-sourced website.

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Bob Garrett, the president/CEO of the Greater Susquehanna Valley Chamber of Commerce, called a small area where Routes 11 and 15 connect as "the K-Mart Triangle." It's an area where calls are often dropped around the former K-Mart in Shamokin Dam. He also noted that Western Snyder County and the lower end Northumberland County is troublesome. "I always know when I'm coming on Route 61 at Zimmerman's to wrap up the conversation and start it back up when I get to Whispering Oaks," said Garrett. "I drove up 11th Avenue, there's a shadow right where the thruway bridge is going to be in Shamokin Dam. That may drop the call, too."

Mifflinburg Mayor David Cooney recounted a time a few years ago when he was biking near Union County Sportsman Club when his bicycle broke. He couldn't use his cellphone and ended up walking two miles before encountering a group of teens who told him the top of a hill had cell phone coverage. "It's an inconvenience, but it's also an issue of public safety," said Cooney. "If you're in the area, and someone gets hurt, how do you get help if someone can't call?"

Coverage falls upon the providers, and the FCC does not mandate coverage. Maps are based on company reporting, but some data from companies are challenged, according to FCC Spokesman Mark Wigfield. He explained that while the maps show coverage, people may lose signal in some places. "Currently, for fixed service, the FCC looks at service down to the census block level," Wigfield said. "In town, a census block might be one square block or less. In the country, a census block may be larger geographically. If there is at least one home or business with broadband service available to it, the census block is considered served. We are examining ways to get down to even smaller geographic units."

For mobile wireless, he said, the situation is more complicated, since a wireless signal can be affected by many factors, including the phone. "We start by looking to see if 4G LTE service — the most common type now — is available, as reported by the provider. Then, we supplement that data with speed test data based on a sampling," Wigfield said. "The FCC's Mobility Fund is designed to fill in rural dead zones. That program is relying on a special data collection from providers, which was field-tested by citizens, providers, state and local government, and FCC staff. "We are currently investigating how and why industry data differed from that field testing. That's why the Mobility Fund map is labeled as 'initial eligible areas' and will be updated once the investigation is complete. Funding will then be provided to fill in rural dead zones."

To bring service to rural areas that lack fixed service, the FCC's Connect America Fund provides funding to help subsidize the high cost. Currently, the FCC is considering how to determine what standards should set eligibility for the next round of funding, which will be the \$20 billion Rural Deployment Opportunity Fund, Wigfield said. Wigfield said language in the 2018 Broadband Deployment Report could help identify why dead zones occur. "We note that network speed is one of the key characteristics of mobile wireless performance, and mobile broadband speeds experienced by consumers may vary greatly with a number of factors, including the service provider's received signal quality, cell traffic loading, and network capacity in different locations," according to the report. "For example, the received signal quality is dependent on the service provider's deployed cell site density, low/high frequency radio wave propagation losses, user locations, indoor obstructions and outdoor foliage or clutter, weather, intercell interference conditions, and wireless network optimization parameters."

Moreover, the report notes, "mobile broadband speeds can vary with the capability of consumers' devices. Mobile transmissions are subject to environmental factors that fixed line transmissions do not encounter and, thus, cannot achieve the same kinds of consistent speeds at the current level of technology. We agree therefore with some commenters' concerns that the LTE experience can be highly variable." According to the part of the report that involves Performance Benchmarks for Mobile Service, "the inherent variability of mobile services, as well as certain data limitations, continue to make the use of a single benchmark unworkable. We find that the use of various data points is still the best method to assess the extent to which American consumers have access to mobile advanced telecommunications capability."

This approach allows the FCC to better make comparisons over time in a consistent manner, said Wigfield. Different methods apply when the FCC helps fund deployment through its universal service fund, he noted. For mobile service, the FCC's Mobility Fund II conducted a special collection of data from wireless providers. That has been subjected to field testing in a challenge process, which is on hold as the FCC investigates the data received from the carriers, he said. In 2017, there were 323,448 mobile wireless cell sites in the United States, according to data company Statista.

FCC does not have maps of cellphone tower locations, and providers are not required to report them, Wigfield said. Opponents in Selinsgrove in 2015 successfully rejected a proposal to put up a cell tower at the Selinsgrove community swimming pool. That same year, a cell tower was approved in Danville and was constructed on the Danville Area Community Center site. Some companies offer cell phone signal booster, such as Wilson Amplifiers, the leading independent provider of Wilson Electronics cell phone signal boosters. Cell phone signal boosters improve inside 3G & 4G LTE coverage in weak signal areas such as a home in the countryside, an office building with limited cellular reception, or a vehicle driving to an off-the-grid area.

Sheri Collins, the acting executive director for the Governor's Office of Broadband Initiatives, said the Restore Pennsylvania initiative is not solely focused on wireless phones, but rather access to high-speed internet. The office does not have maps that specifically identifies cellular dead zones. "We don't really differentiate," said Collins. "Cellphones play an integral role in the day to day activities of those in Pennsylvania. It's one component." Dead zones do exist, she said. She described an Adams County employee in the emergency management services that has to drive somewhere with a strong cellular signal to get instructions from a hospital about a patient. "There are areas, there are pockets, where the cell service drops or you don't see it at all," said Collins. "On a visit to the northern tier, the governor experienced it himself in rural Pennsylvania. It became more front and center that we do have challenges across Pennsylvania. We have aging or non-existing infrastructure in Pennsylvania."

Verizon Wireless spokesman David Weissmann provided a <u>coverage map</u>, noting that actual coverage varies because of factors including devices, topography and weather. The online interactive map shows the majority of the Valley covered in red, indicating coverage. Richfield, on the border of Snyder and Juanita counties, a large area just north of the town and small spots around it are considered Verizon dead zones. A large area around the three-county border of Snyder, Union and Mifflin counties — south of Weikart and north of West Beaver Township — has many scattered dead zones. North of Weikert at the border of Union and Centre counties and west of Mifflinburg near the border of the two counties are also dead zones.

In the northwest portion of Union County just north of I-80 at the border of Lycoming is also a dead zone.

Verizon boasts that it covers 326.5 million people, more than 98 percent of the U.S. population. Spokespeople for AT&T, T-Mobile and Sprint did not return requests for comments. Online interactive maps for AT&T show similar scattered deadzones when compared to the Verizon maps in northwestern Snyder County and southwestern Union County on the border of Mifflin and Snyder counties, as well as northern Union County around the borders with Clinton and Lycoming counties.

Online interactive maps for Sprint also show similar scattered deadzones in northwestern Snyder County and southwestern Union County. There's a large deadzone in southern Snyder County between Meiserville and Richmond and north of Oriental, and many smaller scattered deadzones in middle Snyder County around Kreamer, Paxtonville, Mt. Pleasant Mills and McClure, south of Beaver Springs, northwest of Kreamer and southeast of New Berlin.

The Sprint maps show many scattered deadzones in Northumberland County in the land between Riverside and Snydertown in the Rushtown area, in the land between Seven Points and Yordy, as well as north of Yordy. There are is a large deadzone east of Dornsife, and a massive deadzone south of Trevorton stretching east to Gowen City. Near the border with Schuylkill County are many large deadzones around Rebuck and Green Brier, and a massive deadzone around Leck Kill. There's also a small deadzone in rural Coal Township south of Route 901.

T-Mobile's online <u>interactive maps</u> show deadzones in Northumberland County in the area around Irish Valley Road, Routes 4022 and 4019. There are several deadzones, including a large one south, around Trevorton. The southern portion of the county at its border with Schuykill County has massive deadzones as well. T-Mobile's coverage in eastern Snyder and Union County also has large scattered deadzones, similar to the maps for Verizon and AT&T. – *Sunbury Daily Item* 

A streaming service that offers free broadcast TV to cord-cutters is winning support from some big media players, five years after a similar venture was quashed in court. But the emergence of Locast, which makes over-the-air programming available on smartphones and other devices, is likely to get a cold reception from broadcasters, many of which rely on the kind of fees Locast isn't paying to bolster their profits.

Locast allows people without a pay-TV subscription to view local broadcasts of sports and news. The service—backed by the nonprofit Sports Fan Coalition—has launched in several large markets, including New York and Los Angeles, and last week received a \$500,000 contribution from AT&T Inc. Locast is wading into thorny territory. Viewers can always watch overthe-air broadcasts for free with antennae, but federal copyright law requires that companies get a TV station's consent to carry their feeds over cable, satellite or the internet.

The fees station owners charge for that permission makes up a growing part of their revenue. Big broadcasters, too, are earning more revenue from TV stations they own and from the cuts of the fees collected by affiliates. A similar service called Aereo <a href="mailto:suspended-operations">suspended operations</a> in 2014 after the Supreme Court ruled its business model ran afoul of a 1976 law restricting the retransmission of over-the-air-broadcasts.

Locast relies on an exception the law made for nonprofit groups. The organization on its website says its service "is well within the bounds of copyright law" because it asks only for donations and doesn't act as a commercial enterprise. "We've been very careful to adhere to the letter and the spirit of the law," Locast Chairman David Goodfriend said. "Precisely because we've made our legal reasoning public, we've staved off a lot of criticism."

Using Locast, viewers can stream their local ABC, NBC, Fox and CBS stations to watch prime-time broadcast programming, network news and major sporting events like National Football League and National Basketball Association games. Mr. Goodfriend, an attorney and lobbyist who has worked for satellite-TV provider Dish Network Corp., said Locast is designed for young people more comfortable watching video online than through a TV set. It also is for "cord-cutters" who can't watch local sports and news where their local broadcaster's signal is too weak. A spokesman for the National Association of Broadcasters declined to comment.

Locast's workaround wouldn't affect AT&T's deal with the NFL to carry certain games on DirecTV because that package, <u>Sunday Ticket</u>, is limited to out-of-market games. An NFL spokesman declined to comment. Mr. Goodfriend says his service has collected more than 250,000 sign-ups, though he wouldn't disclose how many of those viewers are still using the service. Locast doesn't yet cover the entire country, though it has set up antennae in enough big markets to cover more than 30 million households.

Mr. Goodfriend said he launched with a line of credit from a wealthy donor who prefers to remain anonymous. The benefactor isn't Dish Chairman Charlie Ergen, he said, but is an entrepreneur. The service is available online, but viewers must allow their device to transmit their location to ensure they are viewing channels within the markets where they are being broadcast.

AT&T earlier this month added Locast to its DirecTV and U-verse set-top box menus. Dish already has done the same for customers with its Hopper boxes. AT&T has about 24 million pay-TV customers in the U.S. Dish has about 12 million subscribers. An AT&T spokesman declined to comment. The company said in a news release that its donation will help "make free broadcast content available to consumers and offer them more choice."

The pay-TV giant's support shows that the venture is on firmer legal footing than Aereo, according to Rich Greenfield, an analyst for brokerage BTIG. He estimated that pay-TV companies spend more than \$8 billion to carry broadcasts that are free to watch over the air, costs that they pass on to customers. "That's why your cable and satellite bills keep going up," he said. Supporting a service like Locast could give AT&T some leverage against broadcast networks in future discussions regarding retransmission fees. Companies like AT&T aren't helping Locast "out of the goodness of their hearts," Mr. Greenfield said. "But there's a real consumer benefit to this being successful." – *Wall Street Journal* 

There was ample positivity in the Capitol on Friday after leaders of both parties came to agreements that led to the passage of a state budget for 2019-2020 a few days before the July 1 start of the fiscal year. Gov. Wolf appeared at a Rotunda press conference in support of pre-K education on Friday afternoon and pointed out that there had been a \$145 million

increase in pre-K funding over the past five years. Education was one of a lot of important things in the budget that benefited from bipartisan support, according to Wolf. Republican House Majority Leader Bryan Cutler, meanwhile, told reporters that his party made efforts to compromise during the negotiations, and that he was happy and proud of the overall effort on the budget. – *Allentown Morning Call* 



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