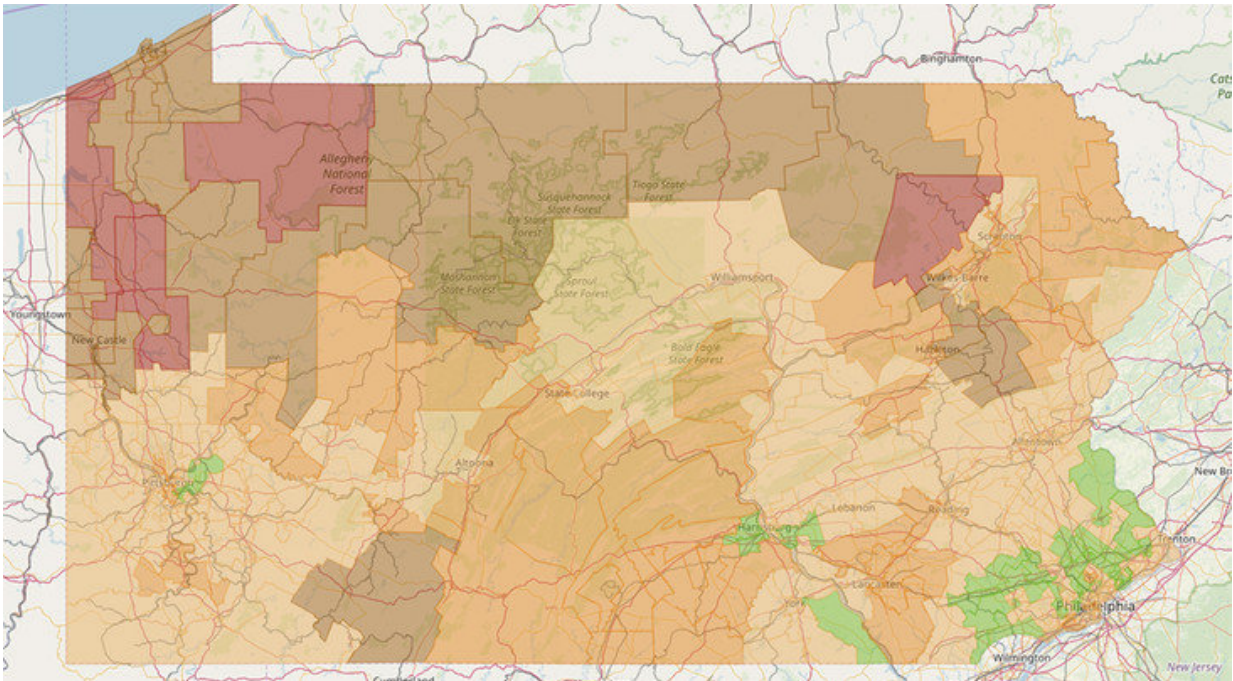


Broadband researcher believes lack of access offers opportunity

November 22 2018, by Steve Sampsell



According to more than 5 million tests, only a small portion of Pennsylvania (those in green on the map) meet the FCC's minimum speed for broadband connectivity. Credit: Pennsylvania State University

As a yearlong effort to study broadband access in Pennsylvania nears its conclusion, the Penn State faculty member leading the effort sees numerous opportunities. The overwhelming amount of data documenting that relatively few residents of the Commonwealth have access to even

the FCC-mandated minimum for measuring internet availability and speed, opens up options for accessing grants to bridge the digital divide.

"The evidence is absolutely compelling. When you look at our data visualization map—which documents areas of Pennsylvania where the median measured [broadband speed](#) meets the FCC's minimum [speed](#) for [broadband](#) connectivity—it becomes clear that under 10 percent of the state meets this minimal requirement. That's just an absolute travesty," said Sascha Meinrath, the Palmer Chair in Telecommunications in the Donald P. Bellisario College of Communications.

"The [good news](#) is that because we are compiling an overwhelming evidentiary trail there is a general acceptance that we've put our finger on a very important and real phenomenon—one that we can now begin to address," said Meinrath. "Nobody's out there saying these hundreds and hundreds and hundreds of thousands of tests are wrong."

Meinrath is a renowned technology policy expert who has been named to the Time Magazine "Tech 40" as one of the most influential figures in technology; to the "Top 100" in Newsweek's Digital Power Index; and received the Public Knowledge IP3 Award for excellence in public interest advocacy.

Meinrath also co-founded Measurement Lab, a global online platform for researchers to deploy internet measurement tools that empower the public and key decision-makers with useful information about broadband connectivity. That online resource, known as the M-Lab, allows anyone to test the connectivity of their computer with a few simple clicks. M-Lab is used by the FCC to help define the official broadband speeds of the United States, and has set the standard for broadband data measurement.

Meinrath's work, supported by a \$50,000 grant from the Center for

Rural Pennsylvania, and millions of dollars in in-kind donations from Measurement Lab consortium members and national organizations like the Institute for Local Self-Reliance and the Open Technology Institute, is meant to equip legislators and other policymakers with scientifically rigorous documentation of the true state of broadband connectivity across Pennsylvania.

M-Lab has been a vital part of the study of rural [broadband access](#) in Pennsylvania because over 5 million tests have already been conducted in the Commonwealth since its inception in 2008. That data provides the baseline for Meinrath's study that began Feb. 1 and stretched throughout the calendar year.

Meinrath said the discrepancy between advertised and actual speeds for Pennsylvania residents has been illuminating. As expected, people in rural areas pay more money for less—rural speeds are slower vis-a-vis advertised availability than people in more metropolitan areas. The amount of difference has been striking, though.

"It's not just a little different. It appears that the more rural areas have a larger difference between advertised and actual broadband speeds than urban locations," Meinrath said. "In some locales, the discrepancy between actual and advertised speeds are an order of magnitude difference or larger. And if you're this underserved or without internet access entirely, you're just not going to be a viable part of the 21st century economy."

For businesses across the spectrum, education, and people who need access healthcare that's a serious concern, said Meinrath. Pennsylvania agriculture is another area of potentially serious impact.

"We have heard from a ton of Pennsylvania farmers that they're facing real problems due to their lack of connectivity. With the advent of

'smart' equipment and more efficient farming services and devices, they need internet connectivity. If you're under-served you're at a meaningful competitive disadvantage," Meinrath said. "There's not a lot of margin for farming to play with, so even if you're 5 percent less efficient due to marginal connectivity, that's the whole ballgame."

For Meinrath, the answer is investment. He said infrastructure improvements today to enhance broadband access will more than pay for themselves by alleviating expenses that the lack of connectivity will create.

"Marginal broadband connectivity is a Commonwealth-wide problem," he said. "My hope is we can get people to agree that we're all in this together and implement solutions starting immediately."

Provided by Pennsylvania State University

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