

The FCC has no idea how many people don't have broadband access

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A new broadband mapping system is starting to show just how inaccurate the Federal Communications Commission's connectivity data is.

In Missouri and Virginia, up to 38% of rural homes and businesses that the FCC counts as having broadband access actually do not, the new research found. That's more than 445,000 unconnected homes and businesses that the FCC would call "served" with its current system.

Given that the new research covered just two states with a combined population of 14.6 million (or 4.5% of the 327.2 million people nationwide), it's likely that millions of homes nationwide have been wrongly counted as served by broadband. A full accounting of how the current data exaggerates access could further undercut FCC Chairman Ajit Pai's claims that repealing net neutrality rules and other consumer protection measures have dramatically expanded broadband access. His claims were already unconvincing for other reasons.

The new research was conducted by CostQuest Associates, a consulting firm working for USTelecom, an industry lobby group that represents AT&T, Verizon, CenturyLink, Frontier, and

other fiber and DSL broadband providers. USTelecom submitted a summary of the findings to the FCC on Tuesday. The two-state pilot was intended to determine the feasibility of creating a more accurate broadband map for the whole US.

Why the FCC's current data is wrong

The key problem with today's maps is that the FCC's Form 477 data-collection program that requires ISPs to report census-block coverage lets an ISP count an entire census block as served even if it can serve just one home in the block. It has always been known that this approach could undercount the number of unserved homes, but it was never clear exactly how far off the numbers were.

The FCC's latest numbers suggest that 21.3 million Americans lack access to fixed broadband with speeds of at least 25Mbps down and 3Mbps up. But those numbers are based on the faulty census block data.

"In addition to other important metrics, our pilot shows as many as 38 percent of additional rural locations in Virginia and Missouri are unserved by participating providers in census blocks that would have been reported as 'served' in today's FCC Form 477 reporting approach," USTelecom and other trade groups representing telecoms and fixed wireless providers told the FCC. "These locations are homes and small businesses hidden from service providers and policymakers simply because of a lack of knowledge fueled by gaps in data—gaps that we can now fill."

USTelecom argued as recently as October 2017 that the FCC "should not seek to collect broadband deployment data that is more granular than at the census block level, because such a change would be unduly burdensome to providers." But industry groups and the FCC itself changed their stance after bipartisan complaints about the inaccuracy of US broadband data.

Three weeks ago, the FCC voted to require ISPs to give the FCC geospatial maps of where they provide service instead of merely reporting which census blocks they could offer service in.

The FCC's new policy should go a long way toward fixing the data problem. But the more accurate data may make it harder for Pai to claim that his deregulatory moves are closing America's broadband gaps. Pai didn't create the process for collecting the Form 477 data, but he has used it to claim that his policies created more broadband, even though the data showed broadband deployment was progressing at about the same rate it did during the Obama administration.

More accurate data will also help the FCC determine which areas should get the most federal funding to expand broadband access. The FCC's Connect America Fund has given billions to ISPs to expand Internet service since its creation in 2011, and Pai plans to continue that with a 10-year, \$20.4 billion fund that would pay ISPs to bring broadband to unserved rural areas.

Data was wrong in 48% of rural census blocks

The CostQuest/USTelecom two-state pilot created a map (or "fabric") of virtually all homes and businesses that could be served by broadband if Internet providers built out to them. The pilot also asked ISPs to submit coverage data, and the ISP-submitted data was compared to the statewide maps to determine how many buildings lacked access.

"Creating the fabric revealed that in just two states over 450,000 homes and businesses exist that are counted as 'served' under current 477 reporting that are not receiving service from participating providers," CostQuest wrote. "While not every broadband provider chose to participate in this

pilot—so the actual number of unserved may be lower—that still leaves the potential for substantial misrepresentations about service availability.”

The pilot also showed that current broadband-availability data is wrong in 48% of rural census blocks and is “in many cases significantly different.”

A nationwide version of the CostQuest map and data set could be completed in 12 to 15 months “for between \$8.5-\$11 million in upfront costs and \$3-4 million in annual updates,” the summary of key findings said. To create the fabric, the pilot used data sources including tax assessor and parcel attribute data, georeferenced building footprints, and road data, along with statistical analysis and crowdsourced in-person reviews of parcels to check accuracy.

CostQuest said its data is far more accurate than what standard geocoding tools provide. The company found that 61% of locations in rural areas were geocoded at an incorrect location and that 25% of the locations were off by more than 100 meters. Additionally, 23% of locations had been geocoded to the wrong census block.

In Missouri, CostQuest found that 9% of non-rural locations were unserved and that 36% of rural locations were unserved. In Virginia, 12% of non-rural locations were unserved and 39% of rural locations were unserved.

It’s not clear whether the USTelecom/CostQuest approach will be completed nationwide. The FCC is requiring ISPs to submit geospatial coverage maps, and the FCC plans to create a crowdsourcing system to collect public input on the accuracy of those ISP-submitted maps. But that wouldn’t require the use of CostQuest’s system, and deadlines for ISPs to submit maps have not yet been announced.

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