

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Modernizing the FCC Form 477 Data Program	)	WC Docket No. 11-10
	)	
	)	October 9, 2017

**COMMENTS OF THE INSTITUTE FOR LOCAL SELF-RELIANCE**

**I. Introduction**

The Institute for Local Self-Reliance (ILSR) mission is to provide innovative strategies, working models, and timely information to support environmentally sound and equitable community development. To this end, ILSR works with citizens, activists, policymakers, and entrepreneurs to design systems, policies, and enterprises that meet local or regional needs; to maximize human, material, natural, and financial resources; and to ensure that the benefits of these systems and resources accrue to all local citizens.

**II. Summary**

Through frequent use of the Form 477 data for public policy analysis, ILSR has become familiar with the shortcomings of the collection methodology. These comments highlight changes to increase the reliability and utility of the Form 477 data. The FCC should first improve the data collection through classifying the units of analysis at least by those that have existing customers or those where new customers can receive service. Finally, we recommend the FCC continue to collect and publish the Form 477 twice a year rather than switching to an annual system.

**III. Limits of Current Fixed Deployment Data**

**a. Technology Availability**

The FCC has proposed that the service providers classify their submissions into three categories: “(1) areas where there are both existing customers served by a particular last-mile technology, and total number of customers using that technology can, and would, be readily increased within a standard interval upon request; (2) areas where existing customers are served but no net-additional customers using that technology will be accommodated; and (3) areas where there are no existing customers for a particular technology but new customers will be added within a standard interval upon request.”<sup>1</sup> We agree with this proposal, highlighting the benefits of these types of categorizations and proposing one further category.

At the very least, the data should be divided into areas with existing customers and areas without existing customers. The current format in the Form 477 conflates these areas, causing a possible

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<sup>1</sup> FNPRM ¶ 34

overstatement of Internet service availability. Separating the data in this way will improve public policies for expansion of existing networks. This can generate better research into broadband adoption, particularly in areas which have access to multiple types of broadband service, yet have no customers.

The proposed category of “areas where existing customers are served but no net-additional customers using that technology will be accommodated” would be especially useful in evaluating the availability of DSL. Increasingly, we have noted how the current Form 477 data cannot account for areas of permanent bandwidth exhaustion, a term used by DSL provider CenturyLink when the company cannot connect new customers to existing infrastructure.<sup>2</sup> These areas have served as many customers as possible, but have reached the capacity of the technology. Within the current Form 477 framework, we cannot easily parse out which areas suffer from this bandwidth exhaustion.

We recommend the FCC consider an additional category: areas where the provider has made the service available to the entire population of that area. The current form 477 and the proposed revisions to the Form 477 do not address this necessary piece of the policy discussion. Knowing which areas are entirely served can help identify those areas that may need more support.

#### **b. Minimum and Maximum Speeds**

The FCC has also proposed making public the information on minimum speed for mobile Internet services.<sup>3</sup> Providers must already include this information on the Form 477. This information is already available from other sources, such as advertisements and providers’ websites.

Similarly, we recommend the FCC also collect information on the minimum advertised speed for fixed deployment services. Currently, providers must list the maximum advertised speed for fixed deployment services, but that only provides a best-case scenario for most areas. The range of speeds advertised in each census block will create a more realistic picture of the Internet service available in our communities.

Again, providers have already made this information available in a piecemeal manner through their advertisements and their websites. This should not be commercially-sensitive information, nor should it be burdensome to collect for providers.

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<sup>2</sup> Permanent bandwidth exhaustion information is anecdotal, but it is an issue throughout the country, particularly in rural communities. Comments on CenturyLink’s Facebook page have discussed the issue since at least 2013, <https://m.facebook.com/CenturyLink/posts/10151492096689707>.

In 2014, Orcas Power & Light Cooperative (OPALCO) members wanted the electric cooperative to offer broadband service because the area was suffering from CenturyLink’s permanent bandwidth exhaustion.

<http://www.opalco.com/wp-content/uploads/2014/08/Narrative-comments11.pdf>

In April 2016, community members in Winlock, Washington, discussed how CenturyLink would not connect them because of this exhaustion. <http://www.winlockneedsinternet.com/2016/04/toledotelcenturylinkwinlock-community.html>

<sup>3</sup> FNPRM ¶ 51

### **c. Pricing Information**

The FCC has made no mention of collecting pricing data as part of the revised Form 477, but pricing information would greatly increase the utility of the Form 477, especially for understanding broadband adoption. Pricing information on the minimum and maximum speed tiers should be collected simultaneously. This information should be available for the general public to find through advertisements and websites and, as such, should not be considered commercially-sensitive.

The addition of this information can identify specific trends, such as comparing Internet service availability and cost in rural communities versus urban areas. Pricing information may also improve analyses on whether public policies are improving broadband competition. This data need not include special promos or temporary discounts; standard annual contracts should suffice. Providers should know what they are charging consumers and in most cases will already be well aware of what their competitors are charging.

### **IV. Mobile Broadband Deployment Data**

The FCC should continue to collect information on spectrum bands used by mobile providers by technology. Although the FCC has not used this information for its own analyses yet, this information could become necessary in the near future. The FCC recently proposed that mobile Internet service of 10 Mbps (download) and 1 Mbps (upload) might soon be considered broadband service. If this were to become the case, then the spectrum information would be essential. Researchers can use this data to determine if mobile providers are offering higher levels of service and understand how efficiently mobile provider are using the spectrum.

### **IV. Granularity**

We agree with the FCC's concern about the granularity of the Form 477 data and the need for sub-census block data.<sup>4</sup> In our own work, we caution any visualization as a possible overstatement of coverage. This has been especially necessary for work concerning rural communities. Rural areas may have large census blocks in which only a few people have access to Internet service. Addressing these shortcomings, the FCC has set forth a number of other possibilities for providing the information. We find the information at the address or street segment level would be the most useful for our analysis in rural areas.

For rural census blocks, at least knowing which road segments Internet Service Providers can reach will help with estimating how much of the population in a rural census block actually has access. This information should be easier to compile than geocoding addresses and can be compared to locations of small towns and other roads. Most state and local governments have information on their road networks publicly available, and providers can use that as a starting point.

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<sup>4</sup> FNPRM ¶ 36-44

## **V. Continue Twice a Year Collection**

The FCC should continue to collect and release the Form 477 twice each year: once in June and once in December. Some networks and technologies expand rapidly. At ILSR, we use the form 477 data as the starting point for most of our public policy analysis. From state- and county-level mapping to analyzing the number of residential gigabit providers in the U.S., our work considers the role of different policies over time, and our analysis will suffer from using data that is more than 6 months out-of-date. If the FCC only collects and publishes the data once annually, we will find it more difficult to explore the potential impact of new providers, such as municipalities or cooperatives.

## **VII. Conclusion**

In sum, we encourage the FCC to improve the Form 477 data in these four ways: 1) the categorization by whether or not the provider actually has customers in that census block and whether the entire block is able to take service, 2) the inclusion of pricing information for minimum and maximum speed tiers, and 3) the use of road networks to augment the rural census blocks. Finally, we ask that the FCC continue its policy of publishing the Form 477 data twice each year.

Respectfully submitted,  
Institute for Local Self-Reliance