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Statement before the House Committee on Energy and Commerce
On LIFT America: Modernizing Our Infrastructure for the Future

Solving the Rural Broadband Gap

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Chairman Pallone, Ranking Member Walden, and members of the Committee, thank you for the opportunity to appear before you at today's hearing on the LIFT America Act. I am a visiting fellow at the American Enterprise Institute and a professor at Boston College Law School, where I teach and write about telecommunications and internet policy. I will focus my remarks today on the act's broadband provisions, particularly the Broadband Internet Access Service Program, which seeks to fund new network construction in unserved areas.

My testimony today proceeds in three parts. First, I want to summarize some key insights about America's broadband accessibility gap. Second, I will highlight the strengths of the LIFT America Act approach to addressing this problem. Third, I will briefly discuss some areas where the act could be improved and share some thoughts on how the act fits into the broader issue of narrowing the digital divide.

Analyzing America's Broadband Availability Gap

I applaud the committee's focus on the important issue of addressing America's broadband availability gap. Over the last two decades, the internet has largely displaced the telephone as our country's primary telecommunications network. From news to commerce to jobs and education, an increasing amount of our daily activities are moving online, meaning that internet access is increasingly important to civic participation in the 21st century.

Unfortunately, not everyone is poised to take advantage of this revolution. According to the Federal Communications Commission, approximately 20 million Americans lack access to high-speed fixed broadband networks.¹ The Commission has been addressing this gap through the Universal Service Fund, a telephone-era subsidy program that the agency has repurposed for the broadband age. These efforts have yielded important insights, some of which are reflected in the LIFT America Act. But I, and many others, have long argued that the Universal Service Program is suboptimal due to lack of transparency and the limits of the program's arcane funding mechanism. The problem would be better addressed through the appropriations process, which would allow Congress to target the problem with a rightsized subsidy subject to direct congressional oversight.

It is important to understand the contours of the broadband availability gap. What analysts often refer to as the "unserved" part of the country actually reflects two distinct territories. In some unserved areas, network installation costs make market entry uneconomical, but if those one-time construction costs could be covered, the network could cover its monthly operating expenses. But in the hardest-to-reach areas, even providing a network for free would be insufficient, as there are insufficient consumers to support the company's costs.

To narrow the broadband availability gap, the government should prioritize those territories where a one-time investment will yield sustainable network growth. This was a key recommendation of the National Broadband Plan, which the Federal Communications Commission developed in 2010 to address this problem: Government subsidies should focus on upfront network construction costs rather than the ongoing carrier subsidies that marked the telephone-era High-Cost Fund.² Economist Scott Wallsten showed that almost 60 percent of

High-Cost Fund dollars went to “general and administrative expenses” such as planning, government relations, and personnel.³ These generic corporate overhead costs do not contribute directly to network construction and therefore only indirectly affect the availability gap.

The LIFT America Act as a Solution

The LIFT America Act reflects an important and valuable step toward solving this problem. It provides \$40 billion in appropriations, primarily to fund network construction in unserved areas. It contains several measures designed to increase the likelihood that its large price tag will lead to appreciable gains for this population.

Perhaps most significantly, the act adopts a reverse-auction mechanism to disburse funds. This helps assure that taxpayers will get the biggest bang for their buck by awarding funds to projects that will connect the most households using the least amount of money. The Federal Communications Commission adopted a reverse-auction mechanism to distribute funds made available in Phase II of the Connect America Fund. Commission Chairman Ajit Pai explained that this design sparked competition that improved the overall efficiency of the program: Areas that the Commission estimated would cost \$5 billion to serve were ultimately covered by a \$1.5 billion subsidy.⁴

Similarly, the act explicitly provides that the funds will be distributed on a technology-neutral basis, without favoring one method of broadband delivery over another. This is crucial, as unserved areas exhibit significant geographic diversity, making a one-size-fits-all plan difficult. A wireless solution may work well on the Kansas plains but not in the mountainous terrain of West Virginia. Traditionally, most consumers receive fixed broadband by wire. But there are natural limits on the effectiveness of wired deployment: A recent study of the history of telephony, electricity, and cable shows that wired deployment typically plateaus at roughly 70 percent of the country, which implies significant subsidies to close the remaining gap.⁵

In the pay television market, satellite providers such as Dish Network and DirecTV closed the gap through intermodal competition. In the broadband context, Connect America Fund Phase II’s commitment to technology-neutral solutions prompted many nontraditional bidders to compete for funds, including satellite companies, wireless carriers, and electric utilities.⁶ This intermodal competition increases the chances of finding the most efficient way of serving individual pockets of unserved consumers. And the benefits of intermodal competition are likely to increase as companies push the technological envelope through 5G development, satellite deployment, and other innovations.

As a long-time scholar of regulatory federalism, I also appreciate that one-quarter of the program’s subsidy dollars will be distributed directly by the states. State regulators have local knowledge and are often in a better position than their federal counterparts to understand the challenges to deployment in a particular area. Many states currently administer their own state-level universal service programs. So vesting some administration at the state level can leverage existing experience and complement ongoing state initiatives. The FCC has recognized this wisdom: In January 2017 the agency granted a waiver that allowed New York to administer its Connect American Fund Phase II funds in coordination with the state’s own New NY Broadband

Program.⁷ Other states have expressed interest in receiving similar waivers. State officials are closer to the constituents they regulate and therefore are more likely to respond to local concerns, suggesting they are more motivated to monitor compliance with buildout projects and move quickly to completion.

Potential Questions and Additional Thoughts

While on the whole the LIFT America Act provides a much-needed boost to efforts to close the broadband availability gap, a few areas raise questions. The first is the requirement that state funds be allocated in direct proportion to the population of each state. This methodology may prove suboptimal. Broadband service is most profitably delivered in population-dense areas, where there are more customers per square mile of network deployment. This means that the unserved areas of the country targeted by the act are likely to skew rural. Allocating dollars based on state population would have the unintended consequence of favoring rural areas that happen to be in a state with a large urban area over rural areas that lack a big city—even though those urban areas are likely to have service and thus tell us little about the state’s availability gap. It would be better to allocate funds on the basis of each state’s unserved population, which better directs the money toward those who it is designed to benefit.

Similarly, I question the act’s inclusion of funds to aid underserved areas, which is defined as those areas with access to 25 Mbps download service but not 100 Mbps download. Unlike unserved areas, where internet access is lacking, these areas have an existing provider. I appreciate that the act deprioritizes underserved areas, allowing funding only through state initiatives and only if no unserved areas exist in the state. But subsidizing a new company to compete directly against an unsubsidized competitor raises different issues than providing service where none currently exists, and it can effectively punish companies that invested private dollars to connect hard-to-serve populations economically. I would urge the committee to pause before extending the program in this way.

This debate raises a larger question about the act’s minimum service standards. The act requires fund recipients to provide a 100 Mbps download service. This can be more than the average consumer needs and thus risks overinvesting in specific projects at a cost of fewer projects. Rather than picking round numbers as benchmarks, I have previously proposed that policymakers adopt an activity-based approach to defining broadband need: Identify the core activities that are essential to participating in online society and estimate the minimum speed necessary to engage in those activities.

For example, Skype recommends that its users have 1.2 Mbps to engage in high-quality videoconferencing. Similarly, Netflix recommends 5 Mbps for its high-definition offerings. At the far end, Netflix recommends 25 Mbps to stream high-resolution 4K video, although it is unclear that the ability to stream 4K video (as opposed to HD) is so essential to digital participation that it warrants a public subsidy. Of course, it may be wise to set a benchmark that exceeds current use cases, as a way to “future proof” the Committee’s \$40 billion investment. But I would urge the committee to consider carefully the appropriate minimum standard, given the potential trade-off between speed provided to an unserved area and the number of unserved areas the program might reach.

Finally, it is important to remember that availability is only one driver of the digital divide. Even in areas where broadband is currently available, survey data by Pew Research suggest that adoption rates are reduced by other factors, such as the cost of monthly service, the cost of computer equipment to get online, and a lack of interest. While a comprehensive approach is beyond the scope of today's proceeding, tools such as low-income assistance and digital literacy training will also be important in the fight to achieve universal connectivity.

Mr. Chairman and Members of the Committee, this completes my testimony. I look forward to answering any questions you may have.

¹ Federal Communications Commission, "Report: America's Digital Divide Narrows Substantially," press release, February 19, 2019, <https://docs.fcc.gov/public/attachments/DOC-356271A1.pdf>.

² Federal Communications Commission, *Connecting America: The National Broadband Plan*, xiii, <https://transition.fcc.gov/national-broadband-plan/national-broadband-plan.pdf>.

³ Scott Wallsten, "The Universal Service Fund: What Do High-Cost Subsidies Subsidize?," (unpublished manuscript, February 14, 2011), <https://ssrn.com/abstract=1927933>.

⁴ Wolters Kluwer, "Pai Announces Plan to Create Rural Digital Opportunity Fund," April 12, 2019, <https://lrus.wolterskluwer.com/news/tr-daily/pai-announces-plan-to-create-rural-digital-opportunity-fund/77313/>.

⁵ Brad Smith, "The Rural Broadband Divide: An Urgent National Problem That We Can Solve," Microsoft, December 3, 2018, <https://blogs.microsoft.com/on-the-issues/2018/12/03/the-rural-broadband-divide-an-urgent-national-problem-that-we-can-solve/>.

⁶ Smith, "The Rural Broadband Divide."

⁷ Connect America Fund, 32 FCC Rcd. 968, (2017) (ETC Annual Reports and Certifications).