

Fahe believes that access to broadband communication is critical for all Americans in our 2020s life and economy.

Broadband has been shown to have powerful benefits for: public safety (connecting emergency personnel and citizens to receive information); employment and jobs (enabling people to start businesses and existing businesses to prosper); health (allowing telemedicine and access to medical records/research); education (permitting students to access online research for schoolwork and connect with educators online); and government services (access to justice and needed public government health and wellbeing information).

For this reason, Fahe supports a <u>Comprehensive Broadband</u> <u>Deployment Strategy</u> that invests in addressing the following.

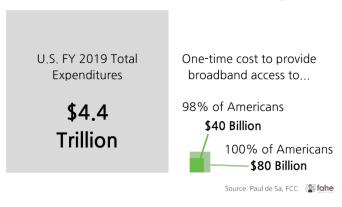
Fahe supports access to all homes with 100mbps/20mbps bandwidth, with higher bandwidth in commercial centers.

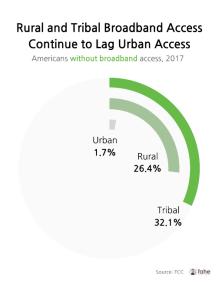
- Access to quality broadband is an issue in the heart of cities, in their outlying areas as
 well as in small town America, as <u>Brookings Institution</u> shows for Knoxville or
 Birmingham, among others. Ending digital redlining of people in low income urban
 neighborhoods is important, just as building to people in the countryside.
- Federal Communications Commission (FCC) minimum acceptable broadband speed should today be at least 100 mbps download / 20 mbps upload. Connect America Fund (now the Rural Digital Opportunity Fund) already prioritizes these speeds.
- Upload speeds <u>are important for economic activity</u> that places like Appalachia would like to attract in order to participate in technology-driven industries. Each county should designate commercial center(s) where 100 mbps download / 100 mbps upload, which will provide fairness to be in reasonable reach of the population. Let's build once and build right with high quality fiber broadband in 2020 in the richest, most powerful country on earth.



A widely cited 2016 FCC estimate to cover all Americans is \$40 billion for all but 2% and \$40 billion for last 2% at 25/3 mbps speeds and would "future-proof" infrastructure. This figure is not disputed. At 100/20 mbps speeds, the cost could be meaningfully more. Fahe supports a combination of grants to incentivize construction and loans to ensure communities are fully invested in the project success, but the grant amount must be high enough for project feasibility in challenging areas, which the auction structure discussed below should facilitate.

Expanding Broadband Access to 98% of Homes and Businesses Would Constitute Less Than 1% of the Annual Budget





- As <u>auctions</u> are typically focused on connecting to end users, Fahe calls for greater federal appropriated investment in the "Middle Mile" of broadband, the essential infrastructure transition that provides the link to these end users, as part of the overall investment.
- Wireless options may have a place, but given ongoing speed and latency concerns with it, true productivity, education, entertainment requires wireline broadband.

Fahe believes that broadband access should be affordable to households at all income levels.

• The median monthly cost of a broadband plan 2019 numbers as determined by cable.co.uk, a British telecommunications provider was \$50.00 in the US, versus \$34.86 in Canada and \$33.15 in Mexico. Given that these are also large, topographically diverse countries, it appears that the major price difference is due to competition policy. Fahe is supportive of efforts to make the U.S. broadband industry more open to competition from for-profit, co-op, public, and non-profit providers. Fahe supports eliminating legal or "de facto" preemption, and that means not assigning extra costs and process to public or non-profit providers versus for-profit providers.

Broadband Packages Are More Expensive in the U.S. than in Most Countries

2020 Average Broadband Pricing, by Country (USD)



Besides the major change of lowering the cost of broadband to all Americans, studies have shown that Low-income consumers can afford to pay about \$10/month for broadband in the context of tough decisions about housing, utilities, and food. Fahe believes expansion of the FCC Lifeline Program to any family receiving federal low-income subsidy such that broadband internet at 100/20 mbps will cost them no more than \$10/month, which can incorporate collaboration with the federal E-Rate program.

Fahe believes that a broadband strategy must include investment in broadband adoption.

Adoption is widely agreed to be an <u>important component</u> of broadband buildout.
 Fahe supports a \$150 million one-time investment over several years nationwide for marketing and classes through existing non-profits, community centers, libraries and others to ensure adoption of the major investment our nation is making in broadband.

In distributing these funds, Fahe supports:

- The **reverse auction** using the existing FCC Rural Digital Opportunity Fund framework, as well as channeling **funding through USDA**, **ARC**, **and others**. These channels exist and could be scaled fairly quickly. For-profit, public, cooperative, and non-profit entities can all apply under current rules, and Fahe supports new accountability that <u>prevents</u> <u>winning bidders from nonperformance</u> with no consequences. If providers say they will build it, Americans want to see it built with quality.
- Consideration of the **10-20-30 formula** (which mandates that 10% of funds for a given program go to communities where the poverty rate has been over 20% for the last 30 years) for broadband, as an added safeguard for parts of the country with limited profit potential or local capacity to obtain grants. This could be combined with cost effective small capacity funding for potential providers in persistent poverty areas to ensure those applications are being made.
- Coordinating with **state broadband commissions**, helping provider applicants ensure all areas are covered sooner and advocating to national program staff that do not know the ground situation as well. Fahe recommends commissions exhibit regional diversity and diversity in backgrounds, not only industry insiders.

Fahe recognizes that in order to develop and implement an effective broadband strategy, our country needs to better measure where the gaps lie in broadband access.

The FCC currently measures an area as served the minute a single house in that census block gets broadband access. That area then becomes ineligible for federal funds for broadband expansion. Fahe supports:

- FCC directed to produce maps with speed, latency, and affordability at a household granularity or a close approximation such as actual wireline fixed broadband % coverage updated at least annually, with a mechanism for independently challenging FCC's speed data;
- 2) Updating the definition of broadband service regularly, so that coverage keeps pace with changing technology standards;
- 3) Programmatic funding of federal agencies to implement the above so that every American is covered by broadband.

Many of priorities in 1) were embodied in the Broadband DATA Act, enacted March 23, 2020, though affordability was not a part of that act and should follow on. A law requiring update of the definition of broadband (we are already calling for 100/20 mbps speed low latency, but technology will not stop there), as well as programmatic funding to implement these measurement reforms is the right next step. We look forward to how the FCC will implement the DATA Act.

Fahe believes that a broadband strategy must take into account long term maintenance.

The federal investments in community broadband connectivity often function as small oneoff investments. When maintenance issues arise, it is the low-density, low-income communities that are unable to pay.

By incentivizing the "build right, build once" approach with fiber optics (buried cable along easy-to-access, disaster-insulated routes, and "dig once" policies) and making provisions for periodic maintenance in the investments, we can minimize a community's upkeep and ensure long lasting service. Congress can ensure this by including language incentivizing "dig once" policies, and directing that grantees set aside 5% of the awarded funding in escrow until maintenance needs appear.

In addition, an Emergency Relief Program for the broadband infrastructure created by this investment will protect from unforeseeable disasters adversely affecting this infrastructure. Modeling such a program on the existing Emergency Relief Program of the Highway Trust Fund, Congress can create a \$100 million annual fund that assists state and local governments rebuild damaged broadband infrastructure following disasters.