

Questions for the Record
Jessica Rosenworcel
Federal Communications Commission

Ranking Member Roger Wicker

Question 1: Please describe how the repeal of the Federal Communications Commission's 2015 Open Internet Order has harmed consumers. Please provide specific, real-world examples.

I believe that there were negative consequences that followed from the decision of the FCC to repeal its net neutrality rules and reduce its oversight of broadband service. As a result of the repeal, the FCC lacked authority to intervene when firefighters in California found their service throttled when they were responding to wildfires. In fact, in its remand of the FCC's decision, the D.C. Circuit found the agency's "disregard of its duty to analyze the impact of the 2018 Order on public safety renders its decision arbitrary and capricious."

In addition, there are stories of small providers that have faced higher pole attachment rates in the wake of the FCC's decision. For example, according to one filing in the FCC's record, two wireless internet service providers reported they had to slow or halt the deployment of fiber on poles because pole owners charged higher rates or refused to negotiate with them when broadband was no longer classified as a telecommunications service.

Meanwhile, academic research led by Northeastern University Professor David Choffnes reviewed crowdsourced data from the Wehe app and found that for mobile internet service providers in the United States, "we don't see evidence of internet service providers throttling only when the network is busy; as far as we can tell, it's 24/7, and everywhere." Professor Choffnes noted that this throttling created a "slippery slope," because "[t]oday it's video, but what is it going to be tomorrow? When internet service providers decide to take control and make decisions on behalf of consumers and/or content providers, what's going to be the fallout for those decisions? Is it actually in everyone's best interests?"

It is important to note that the above has been observed during a period when litigation over the topic of net neutrality has been ongoing and some states have had their own laws and regulations in place governing these matters. For example, California, Colorado, Maine, Oregon, Vermont, and Washington have passed state net neutrality laws while Hawaii, Montana, New Jersey, New York, and Rhode Island have put in place net neutrality contracting requirements. Meanwhile, in other states, legislation has been proposed over the past several years. As a result, internet service providers may have been cautious about their business practices during the time following the FCC decision to roll back its open internet policies. Finally, I should note that one consequence of the FCC's decision to relinquish its oversight over broadband is that the agency has less visibility into what is happening with broadband networks at a time when they are more important in our lives than ever before.

Question 2: In your testimony, you mentioned the difficulty the Commission has in actually collecting forfeitures and fines. What is your plan for addressing this challenge, and what can Congress do to help solve the problem?

The FCC works closely with the Department of Justice on a wide range of issues, including robocall and fraud matters. The agency also assists individual Assistant United States Attorneys to the extent they wish to bring enforcement actions against violators of our rules, including for robocalls. In addition, the FCC works closely with its federal and state law enforcement partners to coordinate enforcement actions, providing support for cases where other law enforcement partners can sanction violators.

Nonetheless, collecting fines from robocall violators has proved challenging at times. Through the FCC enforcement process, the staff of the agency identifies parties that have may have violated the Communications Act, Telephone Consumer Protection Act, and Truth-In-Caller ID Act. The agency then issues a Notice of Apparent Liability and subsequent Forfeiture Order. However, under the law, the FCC must refer the matter to the Department of Justice to collect any payment if the target refuses to pay the penalty imposed by the Forfeiture Order. After the referral, an Assistant United States Attorney may initiate a case in court to collect the fine, but that decision is entirely at the discretion of the Department of Justice and often rests with a specific Assistant United States Attorney, who must weigh the case against a range of other criminal and civil priorities. Compounding this challenge, the time required to complete the enforcement process can provide targets an opportunity to hide assets, making it even more difficult to collect the penalty imposed.

This is frustrating but there are changes that could help improve this situation and increase the likelihood that those who violate our robocalling laws are held accountable for their actions.

First, Congress could provide the FCC with authority to freeze the assets of violators. Because FCC process requires the agency to issue a Notice of Apparent Liability and a Forfeiture Order before referral to the Department of Justice, defendants have time to move or hide assets to prevent law enforcement from collecting meaningful fines. Granting the FCC authority to freeze assets of violators would increase the likelihood that a defendant will have assets for an Assistant United States Attorney to collect.

Second, Congress could amend the Communications Act to grant the FCC the authority to seek a court-ordered preliminary injunction or temporary restraining order when an enforcement target continues to engage in apparently unlawful activity, such as robocalling, after the issuance of a Notice of Apparent Liability. While such action would not directly impact the agency's ability to collect specific fines, it would help prevent additional robocalls.

Third, Congress may also wish to explore other options, including providing the FCC with authority to pursue civil enforcement of its forfeitures, particularly where Department of Justice declines to do so.

Question 3: The RDOF Phase I auction closed just about a year ago. As many winners were already well-established providers using proven technology, why has it taken the Commission so long to authorize funds?

RDOF is a program that is designed to help bring broadband and connect rural communities across the country. I support this effort but believe the program requires careful oversight to prevent waste, fraud, and abuse.

As you note, the RDOF Phase I auction was held late last year. However, I believe too little work was done on the maps prepared for the auction, resulting in a rash of initial funding decisions supporting areas where broadband is already present as well as in questionable locations like parking lots, traffic medians, and international airports. In light of this, FCC staff took a series of steps to clean up the program before funding was made available to successful bidders.

First, following the filing of long-form applications at the start of this year, each bidder that had won a preliminary commitment in the Phase I auction was subjected to a careful technical, financial, and legal review. This is important because any further commitment will result in federal payment obligations for the next ten years. As a result, the FCC must be assured that the bidder is actually capable of both deployment and operation and that the technology they have chosen to use will deliver the speeds promised.

Second, in light of the preliminary commitments made for areas that should never have been eligible for support, including, as noted above, parking lots and international airports, the FCC staff sent 197 letters to bidders seeking to remove these areas from funding. As a result of this effort, more than 5,000 census blocks were removed from the program to prevent wasteful spending. This also helps ensure that future RDOF funding can be spent on the rural locations that truly require support.

Third, every bidder that won a preliminary commitment in the auction was required to secure status as an eligible telecommunications carrier in the state where they intend to receive support. This is a requirement that goes beyond RDOF; it is a necessary precondition for the receipt of universal service funds from the high-cost program under the Communications Act. Every bidder had until June of this year to secure this designation before the relevant state public service commissions. Those that did not diligently pursue this designation and in the process demonstrated a lack of commitment to actually deploy service were removed from the program. These failures to diligently pursue applications amounted to removing \$344 million in preliminary awards from the program.

With these clean up measures now underway, FCC staff have been processing all remaining applications as quickly as possible. More than 50 staff from across the agency, including engineers, attorneys, and policy specialists, have been at work on this effort. This has resulted, to date, in approving the applications of 151 providers for \$1.7 billion in funding in 40 states. To put this in context, this is more funding than was approved for the entire Connect America Fund-II auction, which was the biggest broadband reverse auction before RDOF.

Furthermore, now that many of the early efforts to resolve outstanding issues with waste, fraud, and abuse are complete, additional funding decisions will be announced shortly.

Question 4: With regard to mapping, you stated that you were unaware of the agency's IT and computer processing systems, and operation problems before being named acting chairwoman. Should all commissioners have access to the same information on the agency's operations, budget, and IT plans? Yes or no? If not, why not? And, what have you done to correct the problems you found? Please provide examples.

Under Section 5 of the Communications Act and the rules adopted pursuant to it, the Chair of the FCC has unique duties and responsibilities to manage and set the priorities of the agency. These include, among other things, presiding at all meetings and sessions and representing the agency in matters relating to legislation, conferences, and communications with other governmental officers, departments, and agencies. The Chair is also responsible for coordinating and organizing the work of the FCC in a manner that promotes the efficient disposition of all matters before the agency. In practice, this last responsibility means the Chair oversees the operation of the agency, including the financial, budgetary, and technical priorities. While this represents the law and customary practice of the agency, I believe all commissioners at the FCC should have reasonable access to information.

As you know, the Broadband DATA Act was signed into law in March of 2020. With this legislation Congress recognized that if we want to ensure everyone has access to broadband, we need accurate information about where broadband is and is not across the country. Then, in December of 2020, Congress provided the FCC with an appropriation to help fund implementation of this law.

When I was designated the Acting Chairwoman in January of 2021, one of the very first actions I took was to assess the status of this effort. This review made clear that the FCC had an enormous amount of work to do to prepare, develop, and support the systems required for compliance with the Broadband DATA Act and its objectives.

As a result, in my first meeting as Acting Chairwoman, I announced the formation of the Broadband Data Task Force. This group was designed to help coordinate and expedite the design and construction of new systems for collecting and verifying new broadband deployment data. Since its formation, the FCC has made significant progress standing-up the new Broadband Data Collection systems and processes.

This effort began with the retention of an expert data architect to work with the FCC's IT specialists to design and build a prototype of a data flow structure and system for the Broadband Data Collection. On July 2, 2021, the FCC awarded a contract specifically to build that data platform. The Broadband Data Collection will consist of a complex, interrelated set of geospatial information systems and processes to collect deployment data from internet service providers, verified coverage data from federal, state, local, and Tribal entities, and (in certain circumstances) other third parties, as well as challenge data and crowdsourced data. Our data architect and staff were able to move the design process ahead on a very tight schedule and our decision to contract with the same firm to build the Broadband Data Collection platform and systems will create efficiencies that will shorten the development timeline. While there is still a

substantial amount of additional system development work, user acceptance testing, and independent verification and validation left to be done prior to launching the Broadband Data Collection system, we are moving forward at a rapid pace.

The FCC also began a competitive bidding process for the creation of the Broadband Serviceable Location Fabric. The Fabric is required by the Broadband DATA Act. It is a common dataset of all locations in the United States where fixed broadband internet access service can be installed. It represents substantial improvement over past broadband data practices at the agency, which focused on census blocks rather than individually geocoded locations.

Under the Broadband DATA Act, the FCC is required to use the traditional government procurement process to secure any contract for the Fabric. This is the only part of the law that specifies the manner of procurement. As a result, consistent with practices under the Federal Acquisition Regulation, the FCC issued a Request for Information and draft Statement of Objectives on March 8, 2021. The agency received multiple responses, which staff carefully reviewed and then held feedback sessions with multiple entities based on what was learned in this process. The FCC followed this effort with a Request for Proposal on June 1, 2021, which, among other things, specified that the chosen vendor would be required to deliver an initial production version of the Fabric within 120 days of the award. Responses to the RFP were due on July 1, 2021. In response to a pre-award protest filed at the GAO, which is permitted under the Federal Acquisition Regulation, the FCC delivered a revised RFP to all offerors on August 13, 2021. Revised proposals were due on August 26, 2021. Upon filing, agency staff expeditiously reviewed the highly technical and detailed responses to the revised RFP, based on the requirements in the FAR. Following this review, the FCC's Contracting Officer awarded the contract for Fabric development on November 9, 2021. This information was made publicly available on the federal government's system for award management website.

Since the Broadband DATA Act requires that this procurement follow the procedures set forth in Federal Acquisition Regulation, non-winning bidders may file a protest of the award. We know of one such protest filed on November 19, 2021, and there is a possibility that others may file similar post-award protests. The GAO will have 100 days to review this protest and issue its decision.

While procuring the Fabric has been challenging due to the traditional government procurement process required in the Broadband DATA Act, the FCC staff has worked to address other legal and policy matters under the law. These include developing the related processes for challenging data, crowdsourcing data, and verifying data required under the law.

The Broadband DATA Act specifically requires the FCC to establish requirements for a process for a variety of stakeholders to challenge data that is filed by carriers with the agency. To facilitate this process, the Broadband Data Task Force worked with the Wireless Telecommunications Bureau, Office of Economics and Analytics, and Office of Engineering and Technology, to issue a public notice seeking comment on the technical requirements for processing mobile broadband challenge and verification data, including submissions from state, local, and Tribal governments. While the processes for these stakeholders to submit speed test data are relatively simple, the processing that will need to go on "under the hood" at the FCC is

complex. That's why in addition to the detailed descriptions set forth in the public notice and accompanying technical appendix, the Broadband Data Task Force also hosted an online webinar on August 12, 2021, to explain these proposals and respond directly to questions. Comments in response to this public notice were due on September 10, 2021, and reply comments were due on September 27, 2021. FCC staff are reviewing the record and developing final specifications to ensure that the challenge, crowdsourcing, and verification processes will improve the FCC's data on mobile broadband availability and serve the purposes envisioned in the Broadband DATA Act.

The FCC also has accelerated consumer outreach efforts to inform stakeholders of the progress made to date and to provide status updates on future Broadband Data Collection work. We created a new public-facing website (<https://www.fcc.gov/BroadbandData>), which provides a go-to source for orders, public notices, and other educational materials associated with this effort. As a component of this website, we have created a new public portal through which consumers can share their broadband experiences to help inform the work of the Broadband Task Force. More than 13,000 have done so and we continue to analyze the submissions they provided.

The agency is also expanding its efforts to encourage people across the country to download the FCC Speed Test app, which is currently used to collect speed test data as part of the FCC's Measuring Broadband America program. This app has already been downloaded more than 200,000 times. It both provides consumers with an opportunity to test the performance of their wireless broadband network and offer the test results to the FCC while protecting the privacy and confidentiality of those who use it. An updated version of this app is now being designed so that it can be used in the future as a platform for consumers to challenge provider-submitted maps when the Broadband Data Collection systems become available.

We are also continuing to talk directly with stakeholders, including state, local, and Tribal governmental entities, to ensure that they are prepared and able to participate in the data collection, challenge, and verification processes. We will host an initial online workshop for Tribal governments on December 8, 2021, to provide information about the Broadband Data Collection program and technical assistance on the procedures that Tribes will use to submit primary broadband availability data. As our systems and data specifications are finalized, we will continue to reach out to state, local, and Tribal partners to ensure that they are aware of the types and formats of data we will need to ensure a consistent and standardized nationwide data collection. At the same time, we are in the process of procuring additional outside resources to assist the FCC in providing technical assistance to small internet service providers as well as to participants in the challenge process, as required under the Broadband DATA Act.

In addition, we are working with a number of broadband providers to obtain more granular and consistent real-world data to help expedite our development of the Broadband Data Collection IT systems and data structures that will support the new collection, and to inform our effort to develop training and other outreach to providers in advance of their Broadband Data Collection filings. As part of this effort, on August 6, 2021, the FCC released new 4G LTE wireless coverage maps based on the new Broadband Data Collection parameters, using data submitted voluntarily by AT&T Mobility, T-Mobile, US Cellular, and Verizon Wireless. In addition to providing the FCC with real-world data that we can use to build and test our

Broadband Data Collection systems, we created a public map that shows, for the first time, consistent nationwide 4G LTE mobile coverage according to the Broadband Data Collection parameters. This map is now available at www.fcc.gov/BroadbandData/MobileMaps.

Collectively, this work addresses the problems identified during the initial review of FCC capacity to ensure that the agency was prepared to support the objectives in the Broadband DATA Act. If confirmed, I pledge to keep you—and my colleagues at the agency—apprised of further efforts to implement this law.

Question 5: You have previously criticized the Commission’s Electronic Comment Filing System (ECFS), and called it “a stain on the FCC and [the Restoring Internet Freedom] proceeding” that “needs to be addressed.” As the alleged problems with the ECFS have not yet been addressed, do you pledge to overhaul the ECFS before undertaking any controversial proceedings likely to receive similar attention and public comment? If not, please provide your explanation for how future notice and comment proceedings under your tenure can be relied upon. Please also detail your plans to address the problems with the ECFS to ensure that future proceedings under your tenure enjoy a comment record beyond reproach.

Providing the public with notice and opportunity to comment is an essential duty of any agency subject to the Administrative Procedure Act. This includes the FCC. The agency’s electronic comment filing system, known as ECFS, has long served as the way that stakeholders from across the country can comment and participate in communications matters at the FCC.

As you note, in 2017 this system was overwhelmed by public comments and the underlying proceeding at issue—involving net neutrality—was blemished as a result. This became the subject of intense study by the New York Attorney General, GAO, and others.

In light of this situation, the FCC recognized that ECFS should be modernized. Work on this began under my predecessor that involves a multi-phased approach to update the system. This is an effort I wholeheartedly support. During the first phase, which is presently underway, the agency is moving ECFS to a cloud architecture to improve security and scalability. This phase will also include the development of tools like a bot manager to distinguish human filers from bot submissions. Internal testing relating to the first phase is presently underway. The second phase of work to update ECFS will include examination of additional software tools to analyze filings as well as authentication processes for frequent filers.

While this work continues, I believe it is important to note that the agency has duties under the law to continue to provide notice and opportunity to comment in a range of proceedings—including under the recently-enacted Infrastructure Investment and Jobs Act.

Question 6: Please discuss the steps the FCC will take with NTIA, the Department of Agriculture, and the Department of Treasury to prevent overbuilding using federal funds.

I believe that in the past the FCC has worked closely with its federal partners when it comes to efforts to close the digital divide. However, in light of the expanded work to do so in the Infrastructure Investment and Jobs Act, it is essential that we work even closer.

On June 25, 2021, the FCC, NTIA, and Rural Utilities Service at the USDA entered into an Interagency Agreement that specifically “require[s] coordination . . . for the distribution of broadband deployment.” As a result, the FCC, NTIA, and RUS share information on a regular basis about our respective funding programs, including the entities seeking and receiving funding to provide service in a given area, the speed and technology funded, and the terms and conditions of the funding under the law. In addition, the Department of Treasury has sought FCC input for the purposes of implementing the Coronavirus State and Local Fiscal Recovery Fund and the Coronavirus Capital Projects Fund. FCC staff also has engaged with representatives of the Department of Treasury, both separately and alongside NTIA and RUS representatives, to share information and insight on programs and identify coordination opportunities. With respect to the Rural Digital Opportunity Fund, this engagement includes keeping other agencies, as well as state, local, and Tribal governments, apprised of our actions by releasing lists of census blocks that are the subject of default by winning bidders, as well as lists of census blocks where winning bidders have been authorized.

However, it is important to note that the programs each agency oversees may be different under the law. In other words, these efforts each have unique elements like eligibility criteria, funding purposes, and speed thresholds. In some instances, those features could result in separate funding in the same location working together—like, for instance, where one program funds capital expenditures and another supports operating expenditures. I believe it is essential to make sure that these programs, consistent with the law, operate in a complementary manner. At the same time, it is essential that those responsible for these programs—including the FCC—coordinate to ensure funding is directed to areas without adequate service and avoid unnecessary duplication. If confirmed, I pledge to have the FCC work with its federal partners to do so.

Question 7: What are your plans for the Rural Digital Opportunity Fund Phase II auction, in light of the enactment of the Infrastructure Investments and Jobs Act? Do you plan to carry out the RDOF Phase II auction? If yes, when? If no, please explain why not and how you plan to use the funds.

As you know, the Infrastructure Investment and Jobs Act provides \$65 billion in support for new broadband initiatives. A significant part of this funding is dedicated to broadband deployment. This is in addition to other funding initiatives like the RDOF auction. If confirmed, I believe it is essential to carefully review the record in the first phase of the RDOF auction and consider how the landscape has changed as a result of new efforts under the Infrastructure and Jobs Act. However, I believe that under the Communications Act the FCC unequivocally has a duty to support rural, insular, and high-cost areas of the country through its universal service system, which may include support for recurring operations as well as new deployment.

Question 8: Do you plan to directly or indirectly regulate broadband rates? Yes or no?

No. I voted to support the decision in 2015 to adopt net neutrality rules. That decision stated that it “expressly eschew[s] future use of prescriptive, industry-wide rate regulation.” I supported this approach in the past and would do so again in the future.

Question 9: During your confirmation hearing, you noted that you support net neutrality. Do you support pursuing polices that go beyond the 2015 net neutrality rules, such as applying additional Title II requirements on broadband and prohibiting “unreasonable discrimination” in transmitting network traffic?

I voted to support the decision in 2015 to adopt net neutrality rules. I continue to believe, based on court precedent, that Title II is at the foundation of legally sustainable net neutrality rules. As I testified, I believe that any effort to reinstate the Title II classification of broadband internet access service would require a new rulemaking under the Administrative Procedure Act. Such a rulemaking would provide the basis to develop an updated public record on open internet policies, which must inform the agency as it proceeds. I believe this is especially important in light of changes since the initial 2015 decision in technology, state law, and consumer usage.

Question 10: Does the FCC have authority to determine the reasonableness of broadband rates, and if so, how would it make such determinations?

As a result of the 2017 decision to roll back net neutrality, the FCC currently lacks authority to determine whether rates for broadband service are just and reasonable.

However, under section 254 of the Communications Act, the agency is required to ensure that eligible telecommunications carriers that receive high-cost support from the Universal Service Fund charge rates for broadband service that are “reasonably comparable to rates charged for similar services in urban areas.” To determine the rates charged for fixed broadband services in urban areas, the FCC conducts an annual Urban Rate Survey. Eligible telecommunications carriers that receive high-cost support from the Universal Service Fund must offer broadband service at rates that are at or below the relevant comparability benchmark based on the Urban Rate Survey or may be subject to reductions in support.

Question 11: What commitments were you required to make to the administration in order to secure your nomination?

I made no commitments to the White House to secure this nomination, nor were any commitments made to me.

Question 12: Has the White House committed to you that you will be able to serve as chairwoman for the entirety of this administration?

I made no commitments to the White House to secure this nomination, nor were any commitments made to me.

Question 13: A number of companies have filed applications with the FCC to build new satellite-based broadband networks or to expand existing networks. These filings add to

the backlog of applications that the FCC is working through. The FCC has emphasized the importance of next-generation satellite technologies, like low Earth orbit systems, for helping to close the digital divide. Companies rely on the FCC to move efficiently on applications and when delays stack up consumers can be denied services despite sufficient capacity to serve them. This has very real consequences for people on the ground—people who would benefit from closing the digital divide.

- **If confirmed, what will you do to ensure filings are processed in a timely manner, especially given the fact that many of these filings are “placeholder” filings that will not come to fruition? Do you believe that the FCC should prioritize applications for immediate service, rather than the current first-come, first-served approach?**

New satellite broadband technologies have extraordinary potential to help close the digital divide. That is why I agree that the FCC must work expeditiously to ensure the right conditions for these new technologies to succeed. I also believe that each and every application filed with this agency is entitled to due consideration and a level playing field, so that consumers can realize the benefits of more competition and greater choice.

Since the start of the year, the FCC has taken a number of steps to support new space-based services and to clear some of the backlog that previously had built up within the agency. In April, for the first time ever, the FCC allocated spectrum to support new commercial space operations based on proposals that were first made more than seven years ago. Specifically, the FCC allocated the 2200-2290 MHz band on a secondary basis for use in service of space launch operations, pursuant to coordination with NTIA. The FCC also sought comment on the use of additional spectrum for commercial space launches, including the 420-430 MHz, 2025-2110 MHz, and 5650-5925 MHz bands and associated licensing and service rules. In August, the FCC initiated a new V-band processing round that has resulted in proposals for nearly 38,000 new satellites to provide global broadband. In addition, in November, the FCC cleared the way for two new low earth orbiting constellations that will bring broadband and the internet of things services to consumers, businesses, and government customers in the United States and globally.

In parallel, to ensure that filings are processed in a timely manner, the FCC has devoted resources over the past several months to speed up the processing of pending earth station applications—both large ground stations and consumer terminals. While these applications often involve complex issues, this year the FCC has already granted more than 90 such applications. The FCC also continues to process new applications for smaller satellites under new streamlined application procedures that were adopted in 2019. If confirmed, I commit to working with you to explore additional opportunities to ensure that filings before the FCC are processed in a timely manner.

- **Do you support implementing a comment period deadline for satellite applications and a “sunshine period” for the FCC staff to adjudicate comments in a timely way, as opposed to the current open-ended FCC process? Yes or no? If not, why not?**

The FCC’s review of satellite applications involves careful review of very complex technical and safety issues. I believe that our work is best when it reflects a thorough analysis that surveys the full record and addresses all of the questions presented to the FCC. That said, if

confirmed, I would be happy to work with you to consider how our regulatory processes could be improved consistent with the Administrative Procedure Act so that stakeholders cannot use their filings to cause undue delay in our decision-making. This could include clearer deadlines for review and the adjudication of comments and avoiding open-ended processes, provided that these adjustments safeguard the rights of parties to a full and fair hearing of the relevant issues.

- **On average, it appears that the FCC process for approving satellite gateways takes about 300 days—nearly a year—and is applied to each individual gateway site. Will the FCC commit to processing gateway applications more efficiently?**

Yes. Satellite constellations are evolving in ways that are resulting in far more applications for satellite gateways at the FCC. As a result, earlier this year I had the agency reach out to our counterparts at the United States Space Force to explore ways to collaborate better and leverage the broader resources of the United States federal government to speed up this kind of review. If confirmed, I will continue to explore those and other opportunities to ensure that gateway applications are processed efficiently.

Question 14: In January, the FCC adopted an NPRM on 12 GHz. What is your impression of the record thus far? What additional information, if any, would you like to see about whether it is possible to add mobile service throughout the 12 GHz band without causing harmful interference to incumbent licensees? When will you determine if the data is sufficient or insufficient to show that incumbent licensees can be protected, or if the data shows that incumbents will or will not receive harmful interference?

The FCC has started a proceeding to explore opportunities for making more intensive use of 500 megahertz of spectrum in the 12 GHz band. Historically, this band was used for Direct Broadcast Satellite Service and Multi-Channel Video and Data Distribution Service. More recently, proponents of a new generation of satellite operations have received authorization from the agency to launch and operate constellations of hundreds or thousands of satellites using several frequency bands, including the 12 GHz band. Thousands of satellites have been launched already, with new commercial satellite broadband services rolling out across the country. With this proceeding, the FCC is reviewing whether there may be additional opportunities to open this band up for new terrestrial use, including 5G, without causing harmful interference to existing users. That will require carefully examining the characteristics of this spectrum band—including its propagation and capacity characteristics, the nature of in-band and adjacent band incumbent use, and the potential for international harmonization—before deciding whether and, if so, how to make it available for more intensive terrestrial or satellite use.

Initial comments on the 12 GHz NPRM were due on May 7, 2021, and reply comments were due on July 7, 2021. The response in this proceeding was especially robust, with more than 140 filings submitted by stakeholders thus far. The record includes technical studies, as well as legal and policy advocacy about the feasibility for coexistence among the various current and planned operations in the band. FCC staff is digging into the technical record that has been developed so far and determining what, if any, additional information is required. Among other things, we are evaluating the technical showings that have been submitted purporting to demonstrate the potential for coexistence, as well as any critiques of those

studies, to determine if adequate information is in the record to determine whether incumbent licensees can be protected. Some commenters have criticized certain aspects of the technical studies that have been submitted by 5G proponents, while the advocates for 5G or mobile services counter that satellite broadband advocates should provide greater technical details to help evaluate whether additional operations can be accommodated in the band while protecting incumbents. Among the areas that the FCC staff are evaluating are the interference criteria used in one study in the record, the level of increase in probability of interference that should be acceptable, assumptions regarding the operational parameters and technical specifications of satellite user terminals in the band, and the appropriate propagation model to be considered. Further clarification on these points will assist the FCC staff in evaluating the feasibility for coexistence in this band. The engineering analysis, which is unusually complex, is underway right now and will help identify possible next steps. I agree that the FCC should work through these issues expeditiously.

Question 15: The FCC adopted rules governing the 2.5 GHz Educational Broadband Service—making that spectrum available for commercial auction—more than two years ago. Yet, the spectrum remains un-auctioned, despite the Commission seeking comment on auction procedures nearly a year ago. Is the process for reviewing applications during the Rural Tribal Priority Window nearly completed? And is the Commission able to establish auction procedures and set a date for the auction even while it finishes processing those applications?

Yes, the process for reviewing applications during the Rural Tribal Priority Window is nearly complete. Over 400 applications were received in the Rural Tribal Priority Window, with some voluntarily withdrawn by applicants and others dismissed due to lack of eligibility or lack of available spectrum. Of the remainder, the FCC has granted 292 licenses to Tribes or Tribally-controlled entities. Seventy-nine applications remain pending and under evaluation. However, 36 of these applications were listed on an Accepted for Filing Public Notice that was released by the agency on November 18, 2021. Depending on the record that develops in response, many of these 36 applications could be eligible for grant before the end of the year. Of the 43 pending applications, several are mutually exclusive with each other, which if not resolved by the applicants through voluntary amendment to their applications would require one or more closed auctions of those licenses pursuant to Section 309 of the Communications Act. On September 22, 2021, the FCC released a public notice encouraging applicants to take voluntary steps to resolve mutual exclusivity. Some other pending applications require the agency to evaluate requests for rule waivers to access spectrum over non-reservation Tribal lands. The FCC staff continues to individually review each of the pending applications and assist applicants as appropriate.

The FCC's decisions on the pending applications may have an impact on the inventory of spectrum licenses that will be available at the auction. That is why the agency is working to resolve the pending applications as soon as possible in order to provide maximum certainty to bidders in advance of the auction. In light of these efforts, I expect the auction of the remaining 2.5 GHz band licenses to proceed next year but only after the ongoing 3.45 GHz band auction concludes.

Question 16: As you know, Congress passed a Resolution of Disapproval of the FCC’s 2016 ISP Privacy Rules. The law prohibits the FCC from adopting “substantially similar” rules. If the FCC reclassifies broadband service as common carriage subject to Title II requirements, what privacy rules, if any, do you believe the FCC could legally impose on ISPs? Please explain.

Were the FCC to reclassify broadband under Title II, the agency would have the opportunity to conduct a rulemaking regarding the scope of privacy rules applicable to internet service providers as telecommunications carriers under Section 222 of the Communications Act. In such a rulemaking, the FCC would need to consider the effect of the Congressional Resolution of Disapproval of the rules adopted in 2016, which prohibits the FCC from enacting rules in “substantially the same form” as those that were disapproved.

Question 17: The FCC now prohibits a single entity from owning two of the top-four rated television stations in a single market—unless the FCC gives special permission. Some argue that this rule is no longer necessary. Others argue that the rule promotes diversity and helps keep prices down.

- **Do you think that the dual network rule is still necessary?**

Yes, the dual network rule is important. It does not address station ownership or combinations of licensees in any single market but instead prohibits mergers among the top four national television broadcast network companies.

- **Do you think the reduction in competition caused by such combinations can cause financial harm to consumers?**

Yes.

- **In your view, what purpose does the rule serve? Do you see a link between television ownership and pricing? Please explain.**

In general, the power to negotiate for the carriage of two top-four stations in a market can result in higher retransmission fees, which often are passed on to the consumer in the form of higher bills for pay television. The local television ownership rule helps to prevent this harm and the higher consumer costs that might result. Additionally, a lack of competition among local television stations could result in higher costs for local businesses seeking to purchase advertising time on those stations, costs that may likewise be passed on to consumers.

- **Do you believe that such consolidation can maintain diversity of voices in news and other local content?**

Competition is important in these markets because it helps ensure that a diversity of voices serve the community of license, as contemplated by the Communications Act.

Question 18: The FCC under the previous administration permitted broadcasters to “voluntarily” transmit in a new digital format, called “ATSC 3.0.” As I understand it, use of this format gives broadcasters the flexibility to offer new services like broadband and pay television. And, the rules may permit broadcasters to degrade existing free television service in favor of these new services.

- **Do broadcasters have any particular obligation to maintain a robust, free over-the-air service? If so, why? And what should such an obligation look like?**
- **How should the FCC balance concerns about maintaining a robust broadcast television service as the television broadcast industry takes on new lines of business?**

In 2017, the Commission authorized television broadcasters to use the Next Generation broadcast television transmission standard, also called ATSC 3.0, on a voluntary, market-driven basis. The new standard creates the opportunity for features such as higher quality television viewing experience with ultra-high-definition picture resolutions and immersive audio, enhanced emergency alerts, and innovative interactive services.

While work on this standard continues, I agree with you that we need to ensure that consumers are not left behind. The ATSC 3.0 decision from 2017 specifically requires broadcasters to air a local simulcast of their ATSC 3.0 primary video programming stream in ATSC 1.0 format. This local simulcasting is a critical component of the FCC’s authorization of ATSC 3.0 as a voluntary transmission standard. That is because the marketplace is still evolving and devices compatible with the new ATSC 3.0 transmission standard are not present in every home. This requirement ensures that viewers do not have to procure new equipment to watch their favorite news and programming. In other words, it supports maintenance of free, over-the-air service while permitting licensees to develop new and innovative services using the same airwaves.

I think this approach makes sense. Moreover, I think it honors the Communications Act and thoughtfully takes into account the consequences of this change in standard on consumers, including those relying on free, over-the-air viewing.

Question 19: As you know, the FCC included datacasting end-user equipment as eligible for reimbursement under the Emergency Connectivity Fund rulemaking. Technology has advanced to the point where consumers can benefit from using hybrid networks composed of disparate spectrum bands. These network designs are very efficient but may require regulators to give some regulatory flexibility to spectrum licensees to enable the deployment of these hybrid networks? Do you support flexible network use for new technologies that benefit consumers?

As you note, in the decision establishing the Emergency Connectivity Fund, the FCC made the customer premises equipment used to receive datacasting eligible for program support in areas where there is no commercially available internet access service options. Under these circumstances, the FCC found that datacasting can help meet students’ remote learning needs

by providing them with access to educational content outside of a school building through end user devices at students' homes that could download learning materials. Datacasting delivers educational content over broadcast spectrum, which is made possible by FCC rules. I understand that there are a handful of applications requesting support for datacasting end user equipment that are under review at the agency.

More generally, I believe flexible use policies can help advance these and other opportunities by permitting licensees to put their spectrum resources together to best serve the public. That is why, where appropriate, I support providing flexibility to licensees to enable them to use new and innovative technologies to better serve consumers where it can be done in a way that maximizes the efficiency of use of the spectrum and provides appropriate protection to incumbents and other spectrum users. Evaluating such opportunities requires highly technical and fact-specific analyses to which the FCC open and transparent administrative processes are well-suited.

Question 20: There have been some well-publicized cyberattacks on schools that have had insufficient cybersecurity protections in place. Some advocates have proposed allowing schools to use their E-Rate broadband dollars to purchase cybersecurity services, relieving schools of the obligation of purchasing those services, themselves. What statutory authority is there for such a change in eligible services, and what impact would such a change have on E-Rate's budget in the short and long term?

E-Rate, which got its start as part of the Telecommunications Act of 1996, is the Nation's largest education technology program. It is responsible for connecting schools and libraries across the country to essential broadband services. Under the existing program, E-Rate funds basic firewalls. However, as you note, some stakeholders have called for funding next-generation firewalls and other cybersecurity services, including endpoint protection and advanced services. According to a study conducted by some of these stakeholders, funding a broad range of these kind of cybersecurity services would increase demand in the program as much as an additional \$2.389 billion a year.

In light of this, I think it is important to note that last month the President signed into law the K-12 Cybersecurity Act. This legislation requires the Cybersecurity and Infrastructure Security Agency, one of the government's leading authorities on cybersecurity matters, to study cybersecurity risks facing K-12 schools, develop recommendations to assist schools, and create an online toolkit for school officials. If confirmed, I believe that CISA's work to implement the K-12 Cybersecurity Act should inform any FCC efforts in this area going forward.

Question 21: During your hearing, you agreed that we need accurate maps fully in place before we start sending money out. As you know, I have raised concerns about the 5G Fund and the previously proposed Mobility Fund Phase II moving forward based on unreliable data that overstated wireless coverage. As new maps and data are made available, will you commit to revisiting the current 5G Fund Order and update the budget based on new data?

Yes.

Question 22: In July, President Biden signed an Executive Order on “Promoting Competition in the American Economy” that, in part, encouraged the FCC to consider a number of policy actions, including reinstating net neutrality and on broadband access to multi-tenant buildings. Since the publication of the Executive Order, the FCC has sought comment on the latter topic, raising a potential concern that the FCC is taking direction from the White House on telecommunications policy.

- **To what extent has your office or FCC bureaus communicated with any official in the White House on the contents or development of the Executive Order?**

My office and the Office of General Counsel offered technical assistance on various proposals during the development of the Executive Order.

- **Is your office currently developing or planning to develop any policy similar to any of the enumerated policies outlined in the Executive Order?**

The Executive Order encourages the Federal Communications Commission, as appropriate and consistent with applicable law, to consider a range of policies designed to improve the conditions of competition in communications industries.

There is ongoing work at the agency with respect to three initiatives specifically mentioned in the Executive Order—competitive spectrum auctions, support for Open Radio Access Networks to create a more competitive market for network equipment, and expanded broadband choice for residents of multi-dwelling units. In addition, there is work that has begun that is related to the Executive Order because it is a requirement in the Infrastructure Investment and Jobs Act.

First, in October, the FCC began an auction of 100 megahertz of mid-band spectrum in the 3.45 GHz band. This auction will introduce new competition to the provision of mid-band 5G services and features pre-auction aggregation limits to support this effort. It is still underway, but it is likely be one of the highest-grossing auctions in FCC history.

Second, in February the FCC began an inquiry to develop the first public record on the state of Open RAN. To further support the development of this technology in the United States, in July the FCC hosted an Open RAN showcase to educate the carrier community about the availability and growth of this new competitive equipment market. In August, the FCC designated two new innovation zones for qualified licensees to test new advanced technologies and prototype networks, including Open RAN—in Boston, Massachusetts and Raleigh, North Carolina. In October, the FCC also opened the filing window for the \$1.9 billion reimbursement program available to carriers for replacement of untrusted equipment pursuant to the Secure and Trusted Communications Networks Act. Under the rules for this program, the agency has made clear that carriers may choose to deploy Open RAN technologies as replacement equipment.

Third, in September, the FCC issued a public notice seeking comment on practices that landlords and internet service providers may engage in that have the effect of reducing choice and competition in multi-tenant environments. This was an effort to build on an earlier record on

this subject that began with a notice of inquiry in 2017 and specific proposals in a rulemaking in 2019. Comments and reply comments have been filed and the agency is reviewing next steps.

Finally, as a related matter, the Infrastructure Investment and Jobs Act directs the FCC to adopt regulations requiring broadband providers to display a “broadband consumer label” similar in format to the food nutrition labels used by the Food and Drug Administration and proposed by the FCC’s Consumer Advisory Committee. The agency is preparing a rulemaking to implement this legislative directive, which aligns with policies in the Executive Order.

- **If confirmed, do you commit to maintaining the independence of the FCC from the White House and executive branch agencies?**

Yes.

Question 23: The recently-enacted Infrastructure Investment and Jobs Act (IIJA) provides \$65 billion for broadband and also directs the FCC to conduct several rulemakings on broadband price transparency and on digital discrimination.

- **The law directs the FCC to adopt a final order on digital discrimination within two years. What are your views on digital discrimination and will you commit, as Chairwoman, to pursue this rulemaking through a consensus-based process with all Commissioners?**

Section 60506 of Infrastructure Investment and Jobs Act requires the FCC to adopt rules to “facilitate equal access” to broadband, taking into account technical and economic feasibility, including by preventing digital discrimination of access based on income, race, ethnicity, color, religion, or national origin. If confirmed, I will implement this provision consistent with the law. Moreover, in doing so I will consult, as directed, with the Attorney General of the United States. As you know, the first sentence of the Communications Act charges the FCC “to make available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex” communications networks, and I believe that the effort in this legislation to develop a proceeding regarding digital discrimination is consistent with this broader directive in the Communications Act. If confirmed, I will develop a rulemaking on this subject and work with my colleagues on this effort.

- **The law directs the Government Accountability Office to examine whether the FCC’s current definition of high speed broadband (25/3 Mbps) is appropriate. Do you believe that the current definition is appropriate? If not, what do you believe should be the appropriate definition?**

I do not believe the current definition used by the FCC is adequate. The definition of “advanced telecommunications capability”—or broadband—that has been used by the agency since 2015 is 25/3 Mbps. I have consistently expressed concern that the FCC should be more forward-looking with its broadband speed standard. As a result, I have dissented several times in proceedings concerning this standard in connection with the report required under Section 706 of the Telecommunications Act.

I believe we need to set audacious goals if we want to do big things. With the Infrastructure Investment and Jobs Act generally requiring projects to meet a 100/20 Mbps threshold for funding and providers rolling out higher speeds across the country, I believe we need to think bigger. I have previously called for raising the download speed to at least 100 Mbps and rethinking our approach to upload speeds, and my views have not changed.

Question 24: The Infrastructure Investment and Jobs Act (IIJA) establishes a \$42 billion program for broadband investment, on top of a wide range of existing broadband investment programs across a number of federal agencies. There are concerns that these funds may not be used efficiently without effective cost saving measures such as permitting reform.

- **Given the significant infusion of federal funding into broadband, do you believe that the FCC should pursue permitting reforms to ensure that taxpayer dollars do not go to waste? If not, why not? If yes, what permitting reforms do you believe are appropriate for FCC action?**
- **The Council on Environmental Quality (CEQ) has recently proposed rules to modify the National Environmental Policy Act (NEPA) that would make it more difficult and expensive to pursue infrastructure projects, including broadband deployment. Do you believe that overly onerous environmental reviews can deter greater broadband infrastructure deployment?**

I agree that if we want broad economic growth and widespread mobile opportunity, we need to avoid unnecessary delays in state and local permitting processes. That's because they can slow deployment.

In 2018 the FCC amended its rules to clarify that the deployment of small wireless facilities by non-federal entities does not constitute either a "federal undertaking" within the meaning of National Historic Preservation Act or a "major federal action" under National Environmental Policy Act and as a result, certain federal historic preservation and environmental reviews were not required. This action was taken, in part, because historic and environmental reviews may be time consuming and result in delay. However, in 2019, the D.C. Circuit vacated that action, finding that the FCC had not justified its decision under administrative law. In particular, the court noted that the agency had not explained why its action was necessary in light of the streamlined procedures already in place for wireless construction and had not demonstrated why its action was consistent with FCC's decades-long history of carefully tailored review. Following the court's decision, the FCC repealed the affected rules and, as a result, deployments of small wireless facilities currently are subject to NHPA and NEPA review. I believe that in light of this ruling, the FCC will need to identify new ways to move forward.

More broadly, I believe we should acknowledge that we have a history of local control in this country but also recognize that more uniform policies can help us reach more parts of the country with broadband. So while we can develop model codes for small cell and 5G

deployment—we need to make sure they are supported by a wide range of industry and state and local officials. Then it would be valuable to review every policy and program—including those newly established pursuant to the Infrastructure Investment and Jobs Act—and build in incentives to use these models. In the process, we can create a more common set of practices nationwide, but to do so, we would use carrots instead of sticks.

Question 25: We are currently experiencing an ongoing semiconductor shortage, impacting the supply chain across many sectors. As a result, manufacturers have been forced to modify components of their devices in order to continue shipments. However, as a result of these modifications, manufacturers may be forced to resubmit the devices for FCC equipment approval, which can further delay the shipment and supply of communications equipment.

- **What steps has the FCC taken in recent months to assist manufacturers in their efforts to maintain their supply of devices?**
- **Are there interim measures that the FCC can implement to alleviate the challenges that manufacturers are experiencing? Specifically, when the change in the device is a result of the ongoing chip shortage, are there ways to expedite the approval process or provide conditional approval for devices that meet the specifications in the rules?**

I agree that it is necessary for the FCC to study ongoing supply chain matters, including those involving semiconductors.

On May 11, 2019, the FCC released a public notice seeking detailed information about the global semiconductor shortage. The agency specifically sought comment on the impact of semiconductor supply chain constraints on the communications sector in the United States and what this might mean for FCC priorities and initiatives. In addition, the agency asked what steps it might take to ensure a resilient supply chain for communications technologies now and in the future. FCC staff also notified their counterparts at the Department of Commerce to make them aware of our efforts in this area. In response to the public notice, we received more than two dozen submissions. Commenters generally expressed concern about semiconductor supply chain shortages and how they may be exacerbated by the ongoing pandemic. Some commenters suggested that these shortages might impact the ability to comply with regulatory deadlines or efforts to maintain and upgrade networks. The record also includes broad support for federal government efforts to level the global playing field and encourage greater collaboration between industry participants.

I believe the FCC will need to keep this record in mind as it proceeds with its work. At the same time, the agency will need to continue to look for opportunities to improve the efficiency and effectiveness of its processes, including the equipment authorization system. To this end, on June 17, 2021, the FCC adopted a decision updating its device marketing and importation rules to accelerate the timeframe for developing and releasing new devices before receiving full approval. The updated rules give manufacturers greater flexibility to import, market, and conditionally sell equipment while the equipment authorization process is ongoing.

These revisions will help get new devices into the hands of consumers more quickly, while still ensuring that the underlying purposes of the equipment authorization program are served. I believe the FCC will need to continue to evaluate processes like this in order, to determine if there are additional steps the agency can take to update its practices and alleviate the challenges manufacturers may experience due to supply chain challenges.

Senator John Thune

Question 1: USDA recently announced that it would provide additional scoring points to broadband providers that commit to net neutrality. Were you or anyone at the FCC consulted by USDA when it made its determination of what constitutes “net neutrality” in the Reconnect Program?

As part of the established coordination process between the agencies, the Rural Utilities Service staff notified FCC staff before publicly releasing the text of the recent funding announcement. However, neither myself nor FCC staff provided any input on this portion of the funding announcement.

Question 2: Ensuring there is a pipeline of licensed and unlicensed spectrum is critical to the development of 5G, next-generation devices, and ultimately to the United States’ economic growth and global competitiveness. To maintain competitiveness in the 5G space, the FCC has requested roughly \$130 million to plan spectrum auctions for Fiscal Year 2022. Could you explain both the engineering expertise and related depth of analysis these auction planning funds allow the FCC to bring to the difficult questions regarding spectrum management?

I agree that ensuring there is a pipeline of licensed and unlicensed spectrum is important for the development of 5G wireless service, next-generation services and devices, and our national economic growth and global competitiveness.

The spectrum management practices required to support this effort involve a complex, multi-year process that relies on significant input from the public and private sector. It also requires extensive technical, economic, legal, and policy expertise from across the FCC. The engineering work on any spectrum band contemplated for new commercial use typically begins years before an auction or authorization. Among other things, this involves analysis of characteristics of the airwaves at issue and the potential for coexistence between incumbent operations in the frequency band or adjacent band and new commercial uses that might, for instance, enter the band following auction. This analysis is often done in the context of a rulemaking proceeding in order to collect public comment that will shape the technical service rules for the new band. If the band at issue has incumbent federal users, FCC engineers also will work closely with our federal partners, through a range of formal and informal coordination processes, including the NTIA’s Interdepartment Radio Advisory Committee, the interagency Policy and Plans Steering Group, and regularly scheduled meetings between FCC staff and their counterparts at NTIA and other federal agencies.

However, every reallocation presents unique engineering and policy issues, so careful attention and planning is vital. This is especially true for auction-related efforts, which require agency-wide work to ensure the appropriate amount of cost and overhead supports the repurposing of airwaves for new commercial use. In addition, the complexity of spectrum auctions has increased steadily as the agency works through more difficult technical and policy matters in an environment where there is less and less vacant spectrum. You can see this clearly

in many of the auctions the FCC has run in recent years, including the incentive auctions in the 600 MHz and 39 GHz band, as well as the innovative approach taken in the 3.5 GHz band mixing federal, non-federal, licensed, and unlicensed use.

In Fiscal Year 2022, the FCC will need to continue to engage in this kind of planning for future spectrum auctions. It also will need to leverage this expertise in ongoing work associated with universal service, specifically auctions-based efforts associated with supporting the high-cost fund for rural areas. Furthermore, the FCC will need to continue to implement the MOBILE NOW Act and RAY BAUMS Act, including working with NTIA to identify additional spectrum for mobile and fixed use. In addition, pursuant to this legislation the agency will need to prepare annual reports on upcoming systems of competitive bidding, coordinate with NTIA on efforts to incentivize federal agencies to share spectrum allocations, continue work on bidirectional sharing initiatives, continue assessment of commercial wireless use in the lower 3 GHz band, and monitor post-auction operations in bands subject to spectrum sharing or transitioning to new flexible uses. Finally, the FCC will need to devote significant resources in the coming year toward post-broadcast incentive auction implementation, including monitoring progress of stations authorized to continue to operate on their new channels on interim facilities for a limited time pending construction of their final facilities and continuing to reimburse the repacked stations, certain multichannel video service providers and FM radio stations affected by the repack, and transitioning the C-band from incumbent to new flexible use. The budget, as requested, will help ensure that the agency is able to accomplish these efforts.

Question 3: There have been a number of disputes with respect to the spectrum decisions made by the FCC. Do you believe the FCC employs engineers capable of understanding and ensuring the safest use of the public airwaves, and please share whether you believe the FCC conducts its spectrum policy decision-making in a way that provides for any interested party, including any in the federal government, to meaningfully engage.

Yes, I have the utmost confidence in the engineers at the FCC. They have a long history of working to navigate complex technological issues and always keep public safety at the core of their analysis. I also believe that the FCC conducts its spectrum policymaking in a manner consistent with the Administrative Procedure Act. If confirmed, I will continue to ensure the agency does so in an open and transparent way that provides all parties, including those in the federal government, the opportunity to meaningfully engage.

Question 4: The FCC's Alternative Cost Model (ACAM) program is helping bring broadband to rural Americans who are the hardest to serve. However, the benefits of the ACAM program are constrained by specific terms that deny consumers faster broadband speeds. Does the FCC plan to act on a petition pending before the Commission to adopt modifications to the program to more quickly bring higher speeds to consumers served by the ACAM program?

The ACAM program provides model-based support to rate-of-return carriers in return for broadband deployment obligations. There have been two offers to rate-of-return carriers to participate in the program, which ends in 2028 for most electing carriers. Participating carriers receive approximately \$1.1 billion annually.

On October 30, 2020, the ACAM Broadband Coalition, a coalition of providers that participate in the ACAM program, filed a petition for rulemaking seeking to extend the program until 2034, in return for enhanced obligations to provide higher speeds. Currently, the ACAM program requires 804,871 locations to be served at 25/3 Mbps speeds, 165,725 locations to be served at 10/1 Mbps, and 50,227 locations to be served at 4/1 Mbps speeds. The ACAM Broadband Coalition's petition for rulemaking proposes that in exchange for six additional years of support, at a cost to the Universal Service Fund of approximately \$6.6 billion, participants in the ACAM program will serve 605,373 locations at 100/25 Mbps, 300,074 locations at 25/3 Mbps, and 115,376 locations at 10/1 Mbps. The FCC sought comment on the petition for rulemaking on November 4, 2020. Multiple parties filed comments in response. Recently, the Infrastructure Investment and Jobs Act became law, providing a significant infusion of funds for broadband deployment and generally requiring deployment at speeds of 100/20 Mbps. FCC staff currently are evaluating the petition for rulemaking taking into consideration marketplace developments and the funding available in this new law.

Question 5: Preventing illegal robocalls from reaching consumers continues to be a high priority and Congress made that clear when it passed the bipartisan TRACED Act.

- **How is implementation of that law going in your view?**
- **It is more difficult to identify trustworthy calls with certain networks, primarily those without IP technology. What can the FCC do to help authenticate calls across networks?**

The FCC has made substantial progress implementing the TRACED Act and its provisions designed to reduce robocalls. These efforts have helped combat robocalls by promoting efforts to stop these junk calls using technology; adopting policies that require providers to take steps to better protect their customers; and aggressively enforcing against those who make and facilitate these calls.

Since this legislation was signed into law in 2019, the FCC has put in place a caller ID authentication mandate using STIR/SHAKEN technology, developed a safe harbor to encourage carriers to block illegal calls, including one-ring scam calls, and set up a process for registration of a consortium to conduct private-led efforts to traceback the origin of suspected unlawful robocalls. In addition, the FCC has released reports on the Reassigned Numbers Database, one-ring scams, complaint and enforcement activities, traceback efforts, and caller ID authentication implementation progress by voice service providers. The agency also established a Hospital Robocall Protection Group, which published best practices to protect hospitals from robocalls.

Despite these efforts, more work remains. After all, scam artists responsible for robocalls move fast and look for ways to bypass each new effort we put in place to stop them.

Going forward, it is essential for the FCC to close whatever remaining gaps it can in the STIR/SHAKEN regime. To this end, the agency is working to shorten the extension for implementing this caller authentication technology for small service providers if the carrier at

issue has been identified as a source of illegal robocalls. The agency is also working to require providers that serve as a gateway for foreign-originated calls to participate in the STIR/SHAKEN framework. This is essential because we understand that a large number of these junk calls are now originating overseas.

It is also important to note that the TRACED Act identified a gap in the use of STIR/SHAKEN when it directed the FCC to grant an extension to voice service providers without Internet Protocol network technology until a caller ID authentication protocol for their networks is developed. To ensure that this protocol is in fact developed, the FCC required those voice service providers with non-IP network technology to participate in efforts including through industry trade associations, working groups, or industry standards bodies to develop caller ID authentication solutions for such networks. At the same time, the North American Numbering Council has developed recommended steps to promote greater implementation of IP network technology. The FCC will continue to monitor the efforts of these groups in order to expand the effective use of caller ID authentication technologies because we know when they are put in place they can help reduce illegal robocalls.

Question 6: What do you believe the FCC’s role should be relating to Section 230 and do you support Congressional action to address online transparency concerns like my bipartisan PACT Act?

I support efforts in Congress to address online transparency. Moreover, if confirmed, I will ensure the agency works with Congress to help inform its efforts to consider any changes it may wish to make to Section 230 of the Communications Decency Act.

More generally, I recognize that social media can be frustrating. However, it is a medium that is ultimately protected by the First Amendment. That means Section 230 does not modify this underlying set of rights. Instead, the law provides those who host or moderate internet content with some protection from liability from what their users say or do online. Specifically, it provides, among other things, that “[n]o provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider.” It further provides that “[n]o provider or user of an interactive computer service shall be held liable on account of . . . any action voluntarily taken in good faith to restrict access to or availability of material that the provider or user considers to be obscene, lewd, lascivious, filthy, excessively violent, harassing, or otherwise objectionable, whether or not such material is constitutionally protected.” With respect to the FCC, it is important to note that the agency is not referenced in this law. Nonetheless, as noted above, if confirmed, I would be willing to work with Congress to help address any of its concerns—or implement any new legal directives—regarding online transparency.

Question 7: In addition to the FCC’s programs aimed at closing the digital divide, NTIA, USDA, and the Department of Treasury are disbursing funds to support the buildout of broadband networks. How would you characterize the coordination between the FCC, NTIA, and USDA given that they all have programs that support broadband? Are you concerned that programs administered by NTIA, Treasury, and RUS are going to

overbuild FCC-funded locations? What steps is the FCC taking or will be taking to ensure these programs do not overbuild other federally funded networks?

I believe that in the past the FCC has worked closely with its federal partners when it comes to efforts to close the digital divide. However, in light of the expanded work to do so in the Infrastructure Investment and Jobs Act, it is essential that we work even closer.

In June of this year, the FCC, NTIA, and Rural Utilities Service at the USDA entered into an Interagency Agreement that specifically “require[s] coordination . . . for the distribution of funds for broadband deployment.” As a result, the FCC, NTIA, and RUS share information on a regular basis about our respective funding programs, including the entities seeking and receiving funding to provide service in a given area, the speed and technology funded, and the terms and conditions of the funding under the law. In addition, the Department of Treasury has sought FCC input for the purposes of implementing the Coronavirus State and Local Fiscal Recovery Fund and the Coronavirus Capital Projects Fund. FCC staff also has engaged with representatives of the Department of Treasury, both separately and alongside NTIA and RUS representatives, to share information and insight on programs and identify coordination opportunities.

However, it is important to note that the programs each agency oversees may be different under the law. In other words, these efforts each have unique elements like eligibility criteria, funding purposes, and speed thresholds. In some instances, those features could result in separate funding in the same location working together—like, for instance, where one program funds capital expenditures and another supports operating expenditures. I believe it is essential to make sure that these programs, consistent with the law, operate in a complementary manner. At the same time, it is essential that those responsible for these programs—including the FCC—coordinate to ensure funding is directed to areas without adequate service and avoid unnecessary duplication. If confirmed, I pledge to have the FCC work with its federal partners to do so.

Question 8: In 2014, Congress directed the FCC to “commence a rulemaking to review its totality of the circumstances test for good faith negotiations.” Notwithstanding the request, the full Commission has never concluded the proceeding. Do you support completing the work that Congress requested be undertaken in 2014?

In 2015, with my support, the FCC adopted a rulemaking seeking to review and update the totality of the circumstances concerning good faith negotiations for retransmission consent. There was a high level of interest in this proceeding and the record that resulted featured a wide range of different views about the need for additional specificity with respect to good faith negotiation. After reviewing these comments, the Chairman at the time announced that he would take no further action.

Since that time the FCC has revised its good faith retransmission consent rules in order to implement Section 1003 of the Television Viewer Protection Act of 2019. It did so in 2020 specifically to support smaller multichannel video programming distributors by allowing them to operate as a buying group in retransmission consent negotiations with large broadcast station groups.

Since that time the FCC also has investigated alleged violations of the good faith requirement and continues to do so when potential violations arise. This effort has resulted in several significant enforcement actions, including more than \$8.7 million in forfeitures against parties that failed to negotiate in good faith and more than \$57 million in settlement payments for failure to comply with our rules in this area, including the obligation to negotiate in good faith.

As a result, some of the specific practices identified in the agency's rulemaking from 2015 have become less common, as the market has evolved. Nonetheless, other practices may be emerging that could create new challenges for good faith negotiation in the current environment. I believe this means that the flexibility in the totality of the circumstances test is important because it allows the agency to update and evolve its policies and enforcement regarding good faith negotiations. However, given the changes in this market during the last several years, I believe the FCC should first refresh the record it has on this subject in order to ensure it has the most up-to-date information to inform efforts to complete the rulemaking Congress requested in 2014.

Question 9: How can the FCC account for both public and non-public spectrum needs while considering the national security consequences?

Wireless spectrum is a finite resource. Modern civic and commercial life now depend on its availability—as do essential federal missions. This means that thoughtfully managing this resource is vital for our continued economic growth and national security.

For this reason, I believe that it is important that we explore new models for federal-commercial information sharing, cooperation, and collaboration. This requires a whole-of-government approach to spectrum policy that treats spectrum innovation in the United States as it should be treated: in strategic terms that ensure we identify creative ways to remain the global leader in technology-driven innovation.

To do so, and to advance both non-federal and federal spectrum needs, we need to embrace the range of new wireless access technologies available. This requires recognizing that traditionally our system of spectrum access has had a binary quality. Either it is licensed or unlicensed, federal or non-federal. But this duality is not the result of physics. It is the result of an intentional set of policy choices that can create scarcity when there are other choices we can make to facilitate abundance. To understand how, it is instructive to consider the model the FCC created in the 3.5 GHz band several years ago. Here the agency took 150 megahertz of spectrum and opened it up to a mix of government, licensed, and unlicensed uses. It did this by proposing a spectrum access database to dynamically manage the different kinds of wireless traffic using these airwaves. This multi-tiered approach to spectrum access was not just unprecedented—it was creative, efficient, and forward looking. Today this band accommodates important government radar operations that protect our safety while also making much-needed mid-band spectrum available to advance our wireless leadership. These kinds of creative efforts should continue to be developed as the FCC works to accommodate public and non-public demands on our airwaves.

Senator Roy Blunt

Question 1: Chairwoman Rosenworcel, you have been in the telecommunications world a long time, as both a staffer and as a commissioner. You have seen an incredible change in a number of industries that the Commission oversees, both in terms of technology and the marketplace.

I wanted to specifically highlight the local broadcast industry, which is of vital importance to both local communities and our country as a whole, and serves a key role in providing access to trusted, objective news. Both Congress and the FCC have consistently affirmed the importance of local broadcasting, from its inception through its transition to digital and high definition, and by allowing local stations to pursue spectrum innovation and offer local listeners and viewers more information and a better experience.

You have made public statements consistent with this view. For example, in your testimony at a Senate Commerce FCC oversight hearing from last year, you stated: “we should scour the FCC’s rules to identify how to support local media... [W]e need to do our part to try to support local journalism and jobs. We need to help bring the capacity for program origination back to the communities where stations serve.”

- **Given the importance of local broadcasting, can you commit to continuing to work with me and the Members of this committee to keep the local broadcast medium vibrant and stations on a level regulatory playing field with their competitors in the audio, video, and advertising marketplaces?**

Yes.

- **Years ago, Congress enacted a law which allowed certain low power television stations to apply for and receive enhanced rights to their spectrum licenses, giving them certainty to invest in their stations and grow their audiences in mainly small and rural markets. I’m working on legislation to open another, similar window to allow for additional low power stations to once again apply for these “Class A” rights. Can I have your commitment that you will work with me and this Committee in enacting that law so that we can help expand and protect television stations in small markets and the viewers that they serve?**

Yes.

Question 2: President Biden signed into law the bipartisan infrastructure legislation this week, which I supported in no small part because of the tremendous investment it will make to close broadband gaps in rural America. This is an incredibly important issue in Missouri, where approximately one third of rural residents still lack access to broadband. At the same time, it’s crucial that this historic investment is spent efficiently and not used to duplicate networks where high speed service already exists or where providers are subject to legally enforceable deployment obligations. For example, this funding is going to

co-exist with multiple broadband funding programs at multiple federal agencies—US Department of Agriculture, NTIA, Treasury—as well as state and local agencies, and we need to coordinate these programs to avoid a situation where the federal government is competing against itself or undermining and discouraging the private sector’s own tremendous infrastructure investments. This is key because every dollar that goes to subsidized overbuilding is a dollar diverted from unserved Americans who lack any access to broadband whatsoever.

Accurate broadband maps are a helpful step in preventing subsidized overbuilding, but further coordination is going to be needed, to avoid subsidizing overbuilding in areas where providers are subject to legally enforceable deployment obligations but haven’t yet made service available—either on account of government funding or otherwise.

- **Chairwoman Rosenworcel, do you agree that it’s important to ensure that federal funding is spent efficiently and not used to overbuild high speed networks?**
- **How would you characterize current coordination efforts among the FCC, NTIA, USDA, and Treasury, as well as with state and local broadband authorities to prevent duplication?**
- **Are you concerned that programs administered by NTIA, Treasury, and USDA are at risk of overbuilding FCC-funded locations, such as locations funded by the 2020 Rural Digital Opportunity Fund auction?**
- **What are you doing to prevent that from happening?**

I agree that it is important to spend federal funding efficiently, especially because, as you note, there are too many communities across the country that still lack access to high-speed service. In light of this, the FCC has increased its efforts to work closely with our counterparts on new initiatives to help close the digital divide.

On June 25, 2011, the FCC, NTIA and Rural Utilities Service at the USDA entered into an Interagency Agreement that specifically “require[s] coordination . . . for the distribution of funds for broadband deployment.” As a result, the FCC, NTIA, and RUS share information on a regular basis about our respective funding programs, including the entities seeking and receiving funding to provide service in a given area, the speed and technology funded, and the terms and conditions of the funding under the law. In addition, the Department of Treasury has sought FCC input for the purposes of implementing the Coronavirus State and Local Fiscal Recovery Fund and the Coronavirus Capital Projects Fund. FCC staff also has engaged with representatives of the Department of Treasury, both separately and alongside NTIA and RUS representatives, to share information and insight on programs and identify coordination opportunities. With respect to the Rural Digital Opportunity Fund, this engagement includes keeping other agencies, as well as state, local, and Tribal governments, apprised of our actions by releasing lists of census blocks that are the subject of default by winning bidders, as well as lists of census blocks where winning bidders have been authorized.

However, it is important to note that the program each agency oversees may be different under the law. In other words, these efforts each have unique elements like eligibility criteria, funding purposes, and speed thresholds. In some instances, those features could result in separate funding in the same location working together—like, for instance, where one program funds capital expenditures and another supports operating expenditures. I believe it is essential to make sure that these programs, consistent with the law, operate in a complementary manner. At the same time, it is essential that those responsible for these programs—including the FCC—coordinate to ensure funding is directed to areas without adequate service and avoid unnecessary duplication. If confirmed, I pledge to have the FCC work with its federal partners to do so.

Question 3: Chairwoman Rosenworcel, you voted for the 2015 Title II Order adopting net neutrality rules. Paragraph 5 of that order stated, “We expressly eschew the future use of prescriptive, industry-wide rate regulation. Under this approach, consumers can continue to enjoy unfettered access to the Internet over their fixed and mobile broadband connections, innovators can continue to enjoy the benefits of a platform that affords them unprecedented access to hundreds of millions of consumers across the country and around the world, and network operators can continue to reap the benefits of their investments.”

- **Do you agree that declining to impose rate regulation on the broadband industry was the right decision?**
- **Are you committed to maintain a policy that rejects rate regulation of broadband service?**

As you note, I voted to support the decision in 2015 to adopt net neutrality rules. That decision stated that it “expressly eschew[s] future use of prescriptive, industry-wide rate regulation.” I supported this approach in the past and would do so again in the future.

Senator Deb Fischer

Question 1: During the hearing, you responded that the Federal-State Joint Board on Universal Service should examine and provide recommendations on contribution reform for the Universal Service Fund. However, the Federal-State Joint Board on Universal Service has not met this year. In fact, records indicate that the Board last met on February 11, 2019.

- **Are there plans at the Commission to schedule the next meeting for the Board?**
- **If yes, could you please confirm the date on which the Board will convene for the next meeting?**
- **Can you commit that the Board will meet in the first quarter of 2022, if you are confirmed?**

I support efforts to have federal and state authorities work together to identify the policies that best support universal service nationwide. The Communications Act sets up a framework for doing so, as Sections 254 and 410 establish the Federal-State Joint Board on Universal Service. Under the law, the board is comprised of three federal commissioners, four state utility commissioners, and a state consumer advocate representative. The FCC appointed three new state members on December 30, 2020, but there is currently a federal commissioner vacancy. If confirmed, I will, as soon as there is a full complement of commissioners at the FCC, work to appoint an additional federal commissioner to join the board and schedule a meeting with the new members.

Question 2: While there are a number of significant funding opportunities for broadband deployment through new federal grants, the Universal Service Fund's mission remains important when it comes to building and maintaining sustainable networks in high cost areas. The Commission's Alternative Connect America Cost Model (ACAM) program is helping to bring broadband to hundreds of thousands of rural consumers in the hardest to reach communities.

- **Does the Commission plan to act on a pending petition to address modifications to the ACAM program to more quickly bring higher speeds to consumers served by the program?**
- **If yes, what is the timeline by which the Commission plans to proceed on the petition?**

The ACAM program provides model-based support to rate-of-return carriers in return for broadband deployment obligations. There have been two offers to rate-of-return carriers to participate in the program, which ends in 2028 for most electing carriers. Participating carriers receive approximately \$1.1 billion in support from the program annually.

On October 30, 2020, the ACAM Broadband Coalition, a coalition of providers that participate in the ACAM program, filed a petition for rulemaking seeking to extend the program until 2034, in return for enhanced obligations to provide higher speeds. Currently, the ACAM

program requires 804,871 locations to be served at 25/3 Mbps speeds, 165,725 locations to be served at 10/1 Mbps, and 50,227 locations to be served at 4/1 Mbps speeds. The ACAM Broadband Coalition's petition for rulemaking proposes that in exchange for six additional years of support, at a cost to the Universal Service Fund of approximately \$6.6 billion, participants in the ACAM program will serve 605,373 locations at 100/25 Mbps, 300,074 locations at 25/3 Mbps, and 115,376 locations at 10/1 Mbps. The FCC sought comment on the petition for rulemaking on November 4, 2020. Multiple parties filed comments in response. Recently, the Infrastructure Investment and Jobs Act became law, providing a significant infusion of funds for broadband deployment and generally requiring deployment at speeds of 100/20 Mbps. FCC staff currently are evaluating the petition for rulemaking in light of the record and other recent developments, including the passage of the Infrastructure Investment and Jobs Act.

Senator Jerry Moran

Question 1: I understand that when it comes to engineers and other highly-desired positions, it is difficult for federal agencies to compete with the private sector for recruits. What challenges does the FCC face when hiring engineers and other technical staff, and what can the FCC do to overcome these challenges?

Engineers are an integral part of the day-to-day work of the FCC. With communications technologies always evolving, their input is essential in every major proceeding at the agency. However, attracting and retaining top talent can be a challenge, especially when private sector employers may be able to offer higher salaries and greater benefits. For this reason, in 2013 I proposed that the FCC create an engineering honors program to recruit young engineers and bring new vigor to the ranks of our technical experts. I am glad that my predecessor adopted this idea and made it a reality. If confirmed, I would look forward to continuing the engineering honors program and exploring other opportunities to create a workplace that attracts the technical expertise that is necessary for the agency to successfully perform its work.

Question 2: Congress has fully-funded the creation of granular maps made by the FCC and it is now dependent on the FCC to complete those maps. Additionally, the new state broadband deployment grant program at NTIA is dependent on these update FCC maps. When will the maps authorized by the Broadband DATA Act be finished?

I agree that maps are crucial to ensuring that the FCC has accurate information about where broadband service is and is not available across the country. With better data we can more precisely target our policymaking efforts and financial resources, including the FCC's universal service funding and the funding included in the recently enacted Infrastructure Investment and Jobs Act, to those unserved and underserved communities where support is needed most.

As you know, the Broadband DATA Act was signed into law in March of 2020. With this legislation Congress recognized that if we want to ensure everyone has access to broadband, we need accurate information about where broadband is and is not across the country. Then, in December of 2020, Congress provided the FCC with an appropriation to help fund implementation of this law.

As a result, in my first meeting as Acting Chairwoman, I announced the formation of the Broadband Data Task Force. This group was designed to help coordinate and expedite the design and construction of new systems for collecting and verifying new broadband deployment data. While it was made clear that we had an enormous amount of work to do, I am pleased to report that we have made significant progress since January.

The FCC is developing the data architecture and systems required for the receipt of broadband data from a wide variety of sources and has completed several aspects of the data collection system design. This is important because when I took the reins at the agency these systems were not in place and having them is a prerequisite for the data collection and mapping required under the Broadband DATA Act.

In addition, the FCC has awarded a competitively bid contract to create and maintain the Broadband Serviceable Location Fabric, which is the foundation for its mapping efforts. The Fabric was specifically required in the Broadband DATA Act. The law also required that the FCC procure the Fabric through the traditional federal government contracting process. This has presented a challenge because, while the agency has awarded the contract, another bidder has filed a protest at the GAO. As a result, the contract is stayed while the GAO has a 100-day period to review the protest and the FCC's response.

While this effort is underway at the GAO, the agency has worked on other efforts to support the Broadband DATA Act and its objectives. This includes writing the rules for the challenge and verification processes required under the law and working to update the FCC Speed Test App contract so that it can be more broadly used by consumers to support mobile challenges and data gathering through crowdsourcing. The agency also is moving forward with procurements to implement the technical assistance functions for providers, state, local, and Tribal governments, and consumers.

As to the precise timing of our collection and release of maps, we have many workstreams in motion to make that happen as quickly as possible. However, as noted above, the ongoing GAO review of the protest associated with the procurement of the Fabric makes identifying a precise date difficult. Nonetheless, we are building and testing the new systems we have and finalizing data specifications and challenge procedures. To this end, the FCC will shortly open its next Form 477 data filing window, which will be the last submission under the current data collection paradigm without carriers having access to the Fabric. However, as soon as the Fabric is compiled by the vendor and reviewed by FCC staff, the agency will release a public notice providing details on implementation of the Fabric and share the geocoded location data with broadband providers so their fixed broadband availability data can be easily ingested into our updated broadband data collection. At the same time, the agency will provide information regarding the process for FCC review and approval of third-party speed test applications for use in the mobile challenge process and will complete development and testing of the challenge and crowdsource data collection components.

While planning for all this work has been underway, the FCC has worked with a number of broadband providers to test our systems and develop a prototype for improved mapping at the agency. As part of this effort, on August 6, 2021 the FCC released new 4G LTE wireless coverage maps based on the new updated parameters, using data submitted voluntarily by AT&T Mobility, T-Mobile, US Cellular, and Verizon Wireless. This resulted in a public map that shows, for the first time, nationwide 4G LTE mobile coverage according to the updated parameters that were uniformly used by every carrier submitting data. This map is now available at www.fcc.gov/BroadbandData/MobileMaps.

If confirmed, I pledge to keep you—and my colleagues at the agency—apprised of further efforts to implement the Broadband DATA Act and further develop the mapping the law contemplates.

Question 3: As you are aware, the FAA issued a Special Airworthiness Information Bulletin in regards to the planned deployment of 5G equipment in the portion of spectrum

known as the C-Band. This bulletin caused mobile carriers to delay the deployment of this equipment until the safety concerns can be addressed. How can the review process for spectrum auctions and reallocation be improved to prevent similar delays in the future?

Wireless spectrum is a finite resource. Modern civic and commercial life now depend on its availability—as do essential federal and public safety missions. This means that thoughtfully managing this resource is vital for our continued economic growth and our safety.

At the outset, it is important to recognize that supporting public safety is a priority for the FCC under the law. The very first sentence of the Communications Act charges the agency with promoting the safety of life and property through wire and radio communications. It is essential that the FCC is mindful of this in everything it does. This means that as the Nation’s expert federal agency responsible for managing spectrum, the FCC is committed to ensuring air safety when moving forward with the development of new technologies that support American business and consumer needs.

To put these principles in practice, I agree with you that it is essential to improve the Nation’s interagency processes involving spectrum decisions. If confirmed, I will work to do so. In fact, since the start of this year, I have instructed the FCC staff to work more closely with our federal counterparts in a manner that puts a premium on consultation, openness, and the rule of law. These are the values that have helped to thoughtfully and safely grow opportunities for wireless activity in the past and I believe it is essential that we recommit to them now.

I also believe that it is important that we explore new models for federal-commercial information sharing, cooperation, and collaboration. Among other things, this requires a whole-of-government approach to spectrum policy that treats spectrum innovation in the United States as it should be treated: in strategic terms that ensure we identify creative ways to remain the global leader in technology-driven innovation.

Relatedly, the Memorandum of Understanding governing the interagency coordination processes between NTIA and FCC on spectrum matters is nearly 20 years old. Some have suggested that it may be time to revisit and revise the MOU. I agree this is a good idea, and if confirmed I will direct the FCC’s expert staff to evaluate whether there may be opportunities for beneficial improvement to the MOU, including through revision of its current provisions or addition of new ones. These kinds of efforts will help ensure that we avoid delays in the deployment of next generation technologies in the future.

Question 4: In June 2020, Senator Tester and I wrote to the Commission about the importance of the Americans with Disabilities Act (ADA) and the FCC’s responsibility to administer the Telecommunications Relay Service (TRS) Fund in the manner required by the ADA. In particular, the ADA requires that people with hearing disabilities have access to communications services that are functionally equivalent to those provided to the hearing population. What will you do if confirmed by the Senate to ensure that the FCC administers the TRS Fund in a manner that complies with the ADA’s functional equivalence requirement?

If confirmed, I would commit to making sure functional equivalence remains at the center of the FCC's work on its Telecommunications Relay Service programs.

More than thirty years ago, the Americans with Disabilities Act paved the way for the meaningful inclusion of millions of Americans with disabilities in modern civic and commercial life. I recognize that FCC responsibilities under this law help ensure that individuals who are deaf, deafblind, hard of hearing, or have a speech disability are able to pick up the phone; connect with family, friends, and business associates; and participate fully in the world.

Under the ADA, as updated by the Twenty-First Century Communications and Video Accessibility Act, the FCC has made strides in its policies to expand access to modern communications to individuals with disabilities. These efforts include continued support for Telecommunications Relay Services, including Video Relay Service, Internet Protocol Captioned Telephone Service, and Internet Protocol Relay Service.

I support these efforts because I believe they are essential for functionally equivalent access to communications services. But I also believe that as time and technology advance, it is incumbent upon the FCC to review these policies to keep them up to date. To help meet the functional equivalency mandate, our rules contain operational, technical, and functional minimum standards that govern the provision of supported services. The FCC must continue to review, revise, and update these rules to ensure they continue to meet the standard for functional equivalency in the ADA.

Question 5: What is the importance of middle mile broadband investment for networks in rural communities?

Investing in middle mile infrastructure is an underappreciated but vitally important part of supporting broadband deployment. It helps improve resiliency by providing network redundancy and alternative routing in disruptions and disaster. It enhances opportunities for competition in last-mile infrastructure. Middle mile services are also important because they connect rural broadband networks to global internet access providers. Finally, middle mile infrastructure supports wireless deployment by providing backhaul, which is especially important for new 5G wireless services in light of their higher capacities and increased antenna requirements.

I am pleased that Congress recognized the significance of middle mile investment and established a \$1 billion competitive grant program for middle mile infrastructure in the Infrastructure Investment and Jobs Act. If confirmed, I would ensure the FCC is ready to assist NTIA to develop this program.

Question 6: What are the next steps in the 12GHz band rulemaking process? Please explain in detail the factors the FCC is considering.

The FCC has started a proceeding to explore opportunities for making more intensive use of 500 megahertz of spectrum in the 12 GHz band. Historically, this band was used for Direct Broadcast Satellite Service and Multi-Channel Video and Data Distribution Service.

More recently, proponents of a new generation of satellite operations have received authorization from the agency to launch and operate constellations of hundreds or thousands of satellites using several frequency bands, including the 12 GHz band. Thousands of satellites have been launched already, with new commercial satellite broadband services rolling out across the country. With this proceeding, the FCC is reviewing whether there may be additional opportunities to open this band up for new terrestrial use, including 5G, without causing harmful interference to existing users. That will require carefully examining the characteristics of this spectrum band—including its propagation and capacity characteristics, the nature of in-band and adjacent band incumbent use, and the potential for international harmonization—before deciding whether and, if so, how to make it available for more intensive terrestrial or satellite use.

Initial comments on the 12 GHz rulemaking were due on May 7, 2021, and reply comments were due on July 7, 2021. The response in this proceeding was especially robust, with more than 140 filings submitted by stakeholders thus far. The record includes technical studies, as well as legal and policy advocacy about the feasibility for coexistence among the various current and planned operations in the band. FCC staff is digging into the technical record that has been developed so far and determining what, if any, additional information is required. Among other things, we are evaluating the technical showings that have been submitted purporting to demonstrate the potential for coexistence, as well as any critiques of those studies, to determine if adequate information is in the record to determine whether incumbent licensees can be protected. Some commenters have criticized certain aspects of the technical studies that have been submitted by 5G proponents, while the advocates for 5G or mobile services counter that satellite broadband advocates should provide greater technical details to help evaluate whether additional operations can be accommodated in the band while protecting incumbents. Among the areas of debate that the FCC staff are evaluating are the interference criteria used in one study in the record, the level of increase in probability of interference that should be acceptable, assumptions regarding the operational parameters and technical specifications of satellite user terminals in the band, and the appropriate propagation model to be considered. Further clarification on these points will assist the FCC staff in evaluating the feasibility for coexistence in this band. This engineering analysis, which is highly complex, is underway right now and will need to be completed in order to identify possible next steps.

Question 7: I understand that basic cybersecurity measures are an eligible expense for E-Rate. Do you see a benefit to including more advance cybersecurity measures as an eligible expense for E-Rate as well? Please explain in detail.

E-Rate, which got its start in the Telecommunications Act of 1996, is the Nation's largest education technology program. It is responsible for connecting schools and libraries across the country to essential broadband services. Under the existing program, E-Rate funds basic firewalls. However, as you note, some stakeholders have called for funding next-generation firewalls and other cybersecurity services, including endpoint protection and advanced services. According to a study conducted by some of these stakeholders, funding a broad range of these kinds of cybersecurity services would increase demand in the program as much as an additional \$2.389 billion a year.

In light of this, I think it is important to note that last month the President signed into law the K-12 Cybersecurity Act. This legislation requires the Cybersecurity and Infrastructure Security Agency, one of the government's leading authorities on cybersecurity matters, to study cybersecurity risks facing K-12 schools, develop recommendations to assist schools, and create an online toolkit for school officials. If confirmed, I believe that CISA's work to implement the K-12 Cybersecurity Act should inform any FCC efforts in this area going forward.

Senator Dan Sullivan

Question 1: The FCC has taken significant steps in recent years to identify and make available spectrum for commercial use, including for 5G deployment that is critical to ensure U.S. leadership over China. I understand that the FCC is currently examining the potential of 5G in the 12Ghz band through extensive engineering reviews. Do you see this as an opportunity to advance US 5G leadership? Will you commit to complete your review in a timely manner if you find that coexistence is possible between satellite and terrestrial users in the band?

I believe we need more spectrum to support next generation wireless technologies like 5G, and especially mid-band spectrum. That is why the FCC has started a proceeding to explore opportunities for making more intensive use of 500 megahertz of spectrum in the 12 GHz band. If confirmed, I commit to completing the FCC's review of this band in a timely manner should we find that coexistence is possible between satellite and terrestrial users in the band without harmful interference.

Question 2: As you know, Alaska requires unique and creative solutions for broadband deployment. Low Earth orbit satellites (LEOs) have the potential to help provide high-speed, low-latency broadband to rural parts of America. However, some relevant approvals at the FCC, such as for licensing, earth stations, and gateways, can take up to a year or longer to be approved. What steps can you take to accelerate these kinds of satellite authorizations?

New satellite broadband technologies have extraordinary potential to help close the digital divide, especially in hard-to-reach parts of the country like Alaska. That is why I agree that the FCC must work expeditiously to ensure the right conditions for these new technologies to succeed. I also believe that each and every application filed with this agency is entitled to due consideration and a level playing field, so that consumers can realize the benefits of more competition and greater choice.

Since the start of the year, the FCC has taken a number of steps to support new space-based services and to clear some of the backlog that previously had built up within the agency. In April, for the first time ever, the FCC allocated spectrum to support new commercial space operations based on proposals that were first made more than seven years ago. Specifically, the FCC allocated the 2200-2290 MHz band on a secondary basis for use in service of space launch operations, pursuant to coordination with NTIA. The FCC also sought comment on the use of additional bands for commercial space launches, including 420-430 MHz, 2025-2110 MHz, and 5650-5925 MHz, as well as licensing and service rules for all of these bands. In August, the FCC initiated a new V-band processing round that has resulted in proposals for nearly 38,000 new satellites to provide global broadband. In addition, in November, the FCC cleared the way for two new low earth orbiting constellations that will bring broadband and the internet of things services to consumers, businesses, and government customers in the United States and globally.

In parallel, to ensure that filings are processed in a timely manner, the FCC has devoted resources over the past several months to speed up the processing of pending earth station

applications—both large ground stations and consumer terminals. While these applications often involve complex issues, since January, the FCC has granted more than 90 such applications. The FCC also continues to process new applications for smaller satellites under new streamlined application procedures that were adopted in 2019.

With respect to Alaska, the FCC has granted three Alaska gateway earth stations for LEO broadband systems in recent years. The first of these, for a gateway at Talkeetna, Alaska for use with the OneWeb system, was processed and granted before that system was providing end user service. Two other applications have been granted for use with the Starlink system at locations in Alaska, in Kuparuk and Nome. There are two pending applications for Starlink gateways in Alaska—in Ketchikan and Fairbanks—both filed in April of this year. FCC staff are reviewing these applications now, and I anticipate prompt action once that review is complete. If confirmed, I commit to working with you to ensure that filings before the FCC are processed in a timely manner.

Senator Marsha Blackburn

Question 1: There have been efforts by some of our colleagues in the House of Representatives to pressure MVPDs into removing Fox News, Newsmax and other conservative channels from their line ups. There have also been calls by some liberal organizations to have the FCC revoke the licenses of broadcasters like Sinclair. Are you in favor of these calls to use the FCC to remove certain viewpoints from the airwaves?

No.

Question 2: When we spoke recently, we talked about steps the FCC can take to make sure U.S. companies are poised to compete with China. Senator Rubio and Senator Markey's Secure Equipment Act, which I cosponsored, was just signed into law, and I'm glad the FCC will be moving quickly to help make the devices sold in the U.S. more secure. Earlier this year, the FCC sought comment on the global semiconductor shortage and its impacts on the communications industry. What are your next steps for sharing the information that you learned? Is there anything you can share now?

I believe that it is necessary for the FCC to study ongoing supply chain matters, including those involving semiconductors.

On May 11, 2019, the FCC released a public notice seeking detailed information about the global semiconductor shortage. The agency specifically sought comment on the impact of semiconductor supply chain constraints on the communications sector in the United States and what this might mean for FCC priorities and initiatives. In addition, the agency asked what steps it might take to ensure a resilient supply chain for communications technologies now and in the future. FCC staff also notified their counterparts at the Department of Commerce to make them aware of our efforts in this area. In response to the public notice, we received more than two dozen submissions. Commenters generally expressed concern about semiconductor supply chain shortages and how they may be exacerbated by the ongoing pandemic. Some commenters suggested that these shortages might impact the ability to comply with regulatory deadlines or efforts to maintain and upgrade networks. The record also includes broad support for federal government efforts to level the global playing field and encourage greater collaboration between industry participants. The record in this proceeding is publicly available, and I would be happy to work with you and your staff to share the information we have collected.

Moreover, I believe the FCC will need to keep this record in mind as it proceeds with its work. At the same time, the agency will need to continue to look for opportunities to improve the efficiency and effectiveness of its processes, including the equipment authorization system, to help offset the impacts of this shortage. To this end, on June 17, 2021, the FCC adopted a decision updating its device marketing and importation rules to accelerate the timeframe for developing and releasing new devices before receiving full approval. The updated rules give manufacturers greater flexibility to import, market, and conditionally sell equipment while the equipment authorization process is ongoing. These revisions will help get new devices into the hands of consumers more quickly, while still ensuring that the underlying purposes of the equipment authorization program are served. I believe the FCC will need to continue to evaluate

processes like this in order to determine if there are additional steps the agency can take to update its practices and alleviate the challenges manufacturers may experience due to supply chain challenges.

Question 3: As the wireless industry is actively building and deploying 5G connectivity across the country, I'm interested in your thoughts on new rules for terrestrial spectrum licensees that operate in the 12 GHz band. I believe the Commission should continue to explore as many feasible options as possible for transitioning to 5G to keep the U.S. internationally competitive. Will you commit to move quickly to establish new 12 GHz rules if you find coexistence is possible between terrestrial and satellite users in the band?

I agree that the FCC should continue to explore as many options as possible to develop spectrum for new 5G wireless use. If confirmed, I commit to moving quickly to establish new 12 GHz rules should we determine coexistence without harmful interference among new 5G and incumbent users is feasible.

Question 4: In October 2020, a group of broadband providers petitioned the FCC to open a rulemaking on the A-CAM broadband program to increase the speeds the program requires to align them with the speeds required under the new Infrastructure law. It would also speed up the deployment timetables with the goal of bringing broadband more quickly to consumers in rural and remote areas of Tennessee. Will you commit to making it a priority to initiate a rulemaking proceeding to consider changes to the ACAM program that would enhance its ability to bring higher speed broadband to Americans living in rural high-cost areas rapidly?

The ACAM program provides model-based support to rate-of-return carriers in return for broadband deployment obligations. There have been two offers to rate-of-return carriers to participate in the program, which ends in 2028 for most electing carriers. Participating carriers receive approximately \$1.1 billion in support from the program annually.

On October 30, 2020, the ACAM Broadband Coalition, a coalition of providers that participate in the ACAM program, filed a petition for rulemaking seeking to extend the program until 2034, in return for enhanced obligations to provide higher speeds. Currently, the ACAM program requires 804,871 locations to be served at 25/3 Mbps speeds, 165,725 locations to be served at 10/1 Mbps, and 50,227 locations to be served at 4/1 Mbps speeds. The ACAM Broadband Coalition's petition for rulemaking proposes that in exchange for six additional years of support, at a cost to the Universal Service Fund of approximately \$6.6 billion, participants in the ACAM program will serve 605,373 locations at 100/25 Mbps, 300,074 locations at 25/3 Mbps, and 115,376 locations at 10/1 Mbps. The FCC sought comment on the petition for rulemaking on November 4, 2020. Multiple parties filed comments in response. Recently, the Infrastructure Investment and Jobs Act became law, providing a significant infusion of funds for broadband deployment and generally requiring deployment at speeds of 100/20 Mbps. FCC staff currently are evaluating the petition for rulemaking in light of the record and other recent developments, including the passage of the Infrastructure Investment and Jobs Act.

Question 5: When we spoke at your hearing about NTIA's role, you mentioned the possibility of revising the memorandum of understanding between the NTIA and FCC

including with regard to “what harmful interference looks like.” Could you please clarify what you mean about a possible update to what harmful interference looks like?

The Memorandum of Understanding governing the interagency coordination processes between NTIA and FCC on spectrum matters is nearly 20 years old. Some have suggested that it may be time to revisit and revise the MOU. I agree this is a good idea.

While there are various aspects that might be fit for consideration in the context of updating the MOU, one idea might be to commit the agencies to working together to develop mutually agreed methodologies, metrics, and best practices to assess the potential for, and address concerns related to, possible harmful interference. In recent years, many of the spectrum policy controversies in the United States have involved whether a proposed technology or service will cause “harmful interference” to existing spectrum users. Resolving these issues can take time and require careful assessment of the airwaves at issue and incumbent use. I believe that progress clarifying what constitutes harmful interference would be helpful for both spectrum incumbents and wireless innovators by reducing existing regulatory uncertainties. This effort could be led by a working group leveraging the technical expertise of the two agencies, including the engineers at the FCC and technical experts at NTIA’s Institute for Telecommunication Sciences.

Senator Mike Lee

Question 1: I have a bill called the Government Spectrum Valuation Act (S. 553), which would require the NTIA (in consultation with the FCC and OMB) to conduct a market valuation of government spectrum allocations. The goal is to assess the “opportunity cost” associated with federal spectrum. You have expressed support for my efforts in this space in the past. Do you still support my Government Spectrum Valuation Act? What other actions should the FCC take to “replenish” our depleted commercial spectrum pipeline as well as get the data needed to identify new bands for reallocation?

Yes, I support the Government Spectrum Valuation Act. Federal authorities have substantial spectrum assignments. After all, critical missions throughout the government are dependent on access to our airwaves. Nonetheless, we are on a hunt for new opportunities for commercial spectrum. I believe part of that effort will require taking a fresh look at federal uses, and that developing a valuation of federal spectrum could help facilitate repurposing of these airwaves for modern use. For example, we could use this information to build structural incentives for repurposing, so that our federal colleagues see gain and not just loss from reallocation.

There are other actions we can take to ensure a robust spectrum pipeline going forward. For one thing, I believe that it is important that we explore new models for federal-commercial information sharing, cooperation, and collaboration. This requires a whole-of-government approach to spectrum policy that treats spectrum innovation in the United States as it should be treated: in strategic terms that ensure we identify creative ways to remain the global leader in technology-driven innovation.

For another, I believe that we need to embrace the range of new wireless access technologies available. This requires recognizing that traditionally our system of spectrum access has had a binary quality. Either it is licensed or unlicensed, federal or non-federal. But this duality is not the result of physics. It is the result of an intentional set of policy choices that can create scarcity when there are other choices we can make to facilitate abundance. To understand how, it is instructive to consider the model the FCC created in the 3.5 GHz band several years ago. Here the agency took 150 megahertz of spectrum and opened it up to a mix of government, licensed, and unlicensed uses. It did this by proposing a spectrum access database to dynamically manage the different kinds of wireless traffic using these airwaves. This multi-tiered approach to spectrum access was not just unprecedented—it was creative, efficient, and forward looking. Today this band accommodates important government radar operations that protect our safety while also making much-needed mid-band spectrum available to advance our wireless leadership. These kinds of creative efforts should continue to be developed as the FCC works to accommodate public and non-public demands on our airwaves.

Question 2: Regarding spectrum coordination, the FCC and the NTIA have operated under an MOU that is the main mechanism for coordination of spectrum management decisions. Is the existing MOU’s framework sufficient for today’s spectrum coordination between the FCC and NTIA? Do you think the MOU needs to be updated? If so, how?

The Memorandum of Understanding governing the interagency coordination processes between NTIA and FCC on spectrum matters is nearly 20 years old. Some have suggested that it may be time to revisit and revise the MOU. I agree this is a good idea.

While there are various aspects that might be fit for consideration in the context of updating the MOU, one idea might be to commit the agencies to working together to develop mutually agreed methodologies, metrics, and best practices to assess the potential for, and address concerns related to, possible harmful interference. In recent years, many of the spectrum policy controversies in the United States have involved whether a proposed technology or service will cause “harmful interference” to existing spectrum users. Resolving these issues can take time and require careful assessment of the airwaves at issue and incumbent use. I believe that progress clarifying what constitutes harmful interference would be helpful for both spectrum incumbents and wireless innovators by reducing existing regulatory uncertainties. This effort could be led by a working group leveraging the technical expertise of the two agencies, including the engineers at the FCC and technical experts at NTIA’s Institute for Telecommunication Sciences.

Question 3: In your view is the Interdepartment Radio Advisory Committee (IRAC) operating efficiently? In your view, is there room for improvement in the IRAC process? If so, how?

The NTIA’s Interdepartment Radio Advisory Committee is comprised of various executive agencies that assist NTIA in performing its duties of assigning frequencies to United States government radio stations and developing and executing policies, programs, procedures, and technical criteria pertaining to the allocation, management, and use of the electromagnetic spectrum. While FCC is a liaison to the IRAC, it is not a member. One of the primary ways the FCC engages with the IRAC is in the context of formal coordination of spectrum management activities pursuant to the FCC’s Memorandum of Understanding with NTIA. As I noted above, I believe that it may be time to revisit and revise this MOU to improve coordination between the FCC and NTIA.

Question 4: Do you have any concerns about Chinese influence at the International Telecommunication Union (ITU)? Does China’s influence at the ITU have implications for the Chinese setting global standards for telecommunications? As Chair of the FCC, what priorities do you have to prevent Chinese control of the ITU?

Standards setting organizations like the International Telecommunication Union play a significant role shaping the future of technologies like 5G. That means it is in our national interest to ensure that these organizations operate in a fair, impartial, balanced, and consensus-based manner and in accordance with fundamental rules of due process.

I share your concerns about reports that some foreign governments, including the People’s Republic of China, may seek to use the standardization process at the ITU to increase their share of emerging global 5G standards and extend their influence into 6G and beyond. In practice this may mean governments providing funding to companies to help them submit

technical contributions to increase participation in the standardization decision-making process. It may also entail directing those companies to vote with others as a block.

At the FCC, I believe we need to work closely with our allies on setting the technology standards of the future. To this end, I am making the FCC's participation in standards setting organizations a priority. Earlier this year, I announced that the FCC has increased the number of our staff dedicated to standards development issues by roughly 50 percent. I believe it is imperative that the United States government invest the resources necessary to lead in these processes because when we do, we can lead the world by example, encourage innovation at international scale, and support the democratizing possibilities of access to modern communications.

I also believe that we need to start preparing for 6G and beyond. To do that, I believe we should take a page from the 2019 National Defense Authorization Act, which set up a "Project Solarium" on cybersecurity. That effort resulted in more than 80 recommendations on how to overhaul the nation's approach to cybersecurity. Twenty-five of them have been signed into law, and dozens more are on track to be implemented. A 6G Solarium would help bring together government, business, the non-profit sector, and the rest of civil society and the public to chart a new course toward wireless leadership. It would help us be much more coordinated and pulling in the same direction toward clear, consistent goals. That way, we can pursue policymaking that works. To start this effort, in July, I announced that the FCC will re-establish its Technology Advisory Council and charge it with looking beyond 5G and conceptualizing 6G—to help set the stage for our leadership.

Finally, I am working closely with the Department of State and other agencies to promote the candidacy of Doreen Bogdan-Martin to be the next Secretary-General of the ITU. Ms. Bogdan-Martin is a proven leader who is well regarded around the world. Her election and leadership from the United States will send a powerful message that the ITU will operate fairly and in a manner that is accountable to all of its members.

Question 5: It's no secret that you supported the 2015 "Net Neutrality" requirements. And it's no secret that I oppose reinstating the Title II classification of broadband. As Chair, will you be moving to reinstate the Title II classification of broadband?

- **In your view, did the 2015 "Net Neutrality" Rule go far enough? If you bring the classification back, would you go further than the 2015 rule?**
- **Does the Title II classification include supporting the rate regulation of broadband? What about requiring minimum or basic tier affordable broadband plans for low-income individuals?**
- **How would you go about determining whether the FCC should "forbear" a rule from taking effect? And how would you approach this in the "net neutrality context"?**

- **“Net Neutrality” has been a “ping-pong” action as of late with the imposition of Title II classification dependent on who controls the White House. Congress has and continues to actively debate “net neutrality” legislation. Shouldn’t the FCC wait for Congress to act on “Net Neutrality” legislation before the FCC takes any action?**

I voted to support the decision in 2015 to adopt net neutrality rules. As I testified, I continue to support net neutrality rules and I continue to believe, based on court precedent, that Title II is at the foundation of legally sustainable net neutrality rules. I believe that any effort to reinstate the Title II classification of broadband internet access service would require a new rulemaking under the Administrative Procedure Act. Such a rulemaking would provide the basis to develop an updated public record on open internet policies, which must inform the agency as it proceeds. I believe this is especially important in light of changes since the initial 2015 decision in technology, state law, and consumer usage.

With regard to rate regulation, I voted to support the decision in 2015 to adopt net neutrality rules. That decision stated that it “expressly eschew[s] future use of prescriptive, industry-wide rate regulation.” I supported this approach in the past and would do so again in the future. However, under section 254 of the Communications Act, the agency is required to ensure that eligible telecommunications carriers that receive high-cost support from the Universal Service Fund charge rates for broadband service that are “reasonably comparable to rates charged for similar services in urban areas.” To determine the rates charged for fixed broadband services in urban areas, the FCC conducts an annual Urban Rate Survey. Eligible telecommunications carriers that receive high-cost support from the Universal Service Fund must offer broadband service at rates that are at or below the relevant comparability benchmark based on the Urban Rate Survey or may be subject to reductions in support.

Section 10 of the Communications Act provides that the FCC “shall” forbear from applying any provision of the law or its rules with respect to telecommunications carriers or telecommunications services if the FCC determines that enforcement of the provision is not necessary to ensure that the charges, practices, classifications, or regulations by, for, or in connection with that telecommunications carrier or telecommunications service are just and reasonable and are not unjustly or unreasonably discriminatory; enforcement of the provision is not necessary for the protection of consumers; and forbearance is in the public interest. In 2015, in the same order establishing net neutrality rules, the FCC exercised this forbearance authority to forbear from 27 provisions of Title II of the Communications Act and over 700 agency regulations for broadband and broadband providers. I supported this approach with respect to forbearance in 2015 and would do so again in the future.

As I testified, I would faithfully implement any congressional directive as to net neutrality or any other subject. That being said, I voted to support the FCC’s decision to adopt net neutrality rules in 2015, a decision that was upheld by the D.C. Circuit, and believe that the FCC continues to have the authority to adopt net neutrality rules.

Question 6: Our current video marketplace is governed by Title VI of the Communications Act and it dates mostly back to laws that Congress passed in 1992. But technology has changed since 1992 and the wire that used to just bring video now also brings broadband to American households. Should Title VI be modernized to reflect current technologies? Is

there a relationship between effective broadband deployment to urban and rural areas with Title VI reform?

Yes. Many of the laws governing our video marketplace are from decades ago, including Title VI of the Communications Act. While the underlying values that are in the statute remain valid, updating it to reflect the current state of video is prudent. However, because broadband is not a Title VI service, updates would not necessarily directly affect broadband deployment.

Question 7: Conducting cost-benefit analyses for proposed regulations has been a practice undertaken by agencies under both Democrat and Republican Administrations. Please explain your views on the use of cost-benefit analysis when considering proposed regulations. Should all FCC regulations be considered with a cost-benefit analysis? If regulatory costs outweigh the benefits, should that be a determining factor that prevents the FCC from moving forward with a proposed regulation?

I agree that conducting cost-benefit analysis has been a practice of Democratic and Republican Administrations alike. Moreover, this practice has been the subject of executive orders over the course of the last several decades. While the FCC is an independent agency, it has adopted a requirement in its rules for its Office of Economics and Analytics to prepare “a rigorous, economically-grounded cost-benefit analysis for every rulemaking deemed to have an annual effect on the economy of \$100 million or more.” I support this approach. Nonetheless, I recognize that at the same time the agency will need to take into account other legal obligations it has, like those outlined in the Communications Act supporting universal service in rural, insular, and high-cost areas and expanding access to underserved communities under the Twenty-First Century Communications and Video Accessibility Act.

Question 8: Should agencies exercise only power that Congress expressly gives? Absent that “express delegation” should agencies exercise restraint in rulemaking or is allegedly ambiguous language an opportunity for rulemaking?

- **Regulations that are highly prescriptive can create a higher regulatory compliance burden, which hits harder on smaller companies with fewer resources. What is your opinion on the relationship between rules and the ability for market incumbents to use rules to insulate themselves from competition?**

I believe that there should be a firm connection between an agency’s rules and its statutory authority. I also recognize that Congress as a practical matter cannot specify every circumstance in which a statute might apply. For this reason, agencies may need to rely on their subject matter expertise to reasonably interpret ambiguous statutory language and adopt rules on the basis of that interpretation. However, and above all, I believe an agency cannot act in the face of clearly expressed contrary intent.

I agree that regulators need to understand the relationship between regulation and its impact on entrepreneurship and economic growth. To this end, I recognize that our economy thrives on competition. Over history, it has inspired innovation, increased consumer choice, and improved our resourcefulness and efficiency. It is the reason the United States is the home of some the most dynamic companies in the world. I believe that the FCC must tailor its actions to

promote competition and not insulate incumbents from competitive forces. I also believe the FCC must recognize how regulatory changes may affect smaller companies with fewer resources and ensure that it considers this when it does its work under the law.

Question 9: Section 706 of the Telecommunication Act of 1996 requires the FCC to do an annual notice of inquiry regarding the reasonable and timely deployment of advanced telecommunications capability to all Americans. What does “advanced telecommunications capability” mean to you? What does “reasonable and timely fashion” mean to you?

- **If the FCC determines that there isn’t “advanced telecommunications capability being deployed to all Americans,” the Commission is authorized to take “immediate action to accelerate deployment of such capability.” Are there any limits to the authorities that the FCC can exercise under this section? If so, what are they?**

Section 706 of the Telecommunications Act of 1996 defines “advanced telecommunications capability” as “high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology.” The FCC has consistently, for the purposes of its annual notice of inquiry and report pursuant to Section 706 of the Telecommunications Act, defined “advanced telecommunications capability” as an evolving standard of what constitutes broadband. The decision to do so is consistent with other aspects of communications law, including Section 254 of the Communications Act, which details the services eligible for universal service support and defines them as an “evolving level of telecommunications services.”

The speed benchmark for “advanced telecommunications capability” or broadband that has been used by the agency since 2015 is 25 megabits per second download and 3 megabits per second upload.

I have consistently pushed the FCC to be more forward-looking with its broadband speed standard and have dissented several times when the FCC decided to maintain the 25/3 Mbps threshold. I believe we need to set audacious goals if we want to do big things. With the Infrastructure Investment and Jobs Act generally requiring projects to meet a 100/20 Mbps threshold for funding and providers rolling out higher speeds across the country, I believe we need to think bigger. I have previously called for raising the download speed to at least 100 Mbps and rethinking our approach to upload speeds, and my views have not changed.

The pandemic shined a spotlight on how important broadband is for all of us and also showed how far we still are from connecting everyone. I believe that we need to connect 100% of our people to broadband. In passing the 2021 Infrastructure Investment and Jobs Act, Congress made clear that our mandate under Section 706 is to deliver broadband to everyone in this country, referring to Section 706 as containing “the statutorily mandated goals of universal service for advanced telecommunications capability.” In my view, the “reasonable and timely fashion” language is included in Section 706 to make evident that ensuring universal broadband coverage is not merely an aspirational goal for the FCC, it is a mandate for action and Section 706 requires the FCC to regularly examine how well we are doing in achieving that mandate.

The FCC has previously found that Section 706(b) constitutes a grant of regulatory authority to accelerate broadband deployment, a conclusion upheld by the D.C. Circuit in 2014 in *Verizon v. FCC*. As the D.C. Circuit found in that case, to the extent that the agency exercises its authority under Section 706(b), such authority is limited by the FCC's subject matter jurisdiction, including other limitations within the Communications Act, and by the requirement that any regulation be tailored to the specific statutory goal of accelerating broadband deployment.

Senator Ron Johnson

Question 1: During your opening statement you said you want to “make sure 100 percent of this country has access to fast and affordable and reliable broadband.” In the two years after the FCC 2015 rules, broadband investment dropped more than 5 percent and over 80 percent of wireless providers in rural areas incurred additional expenses.

- **How does reclassifying the internet as a utility under Title II support your goals of fast, affordable and reliable broadband?**
- **How will such reclassification affect investment in rural areas?**

America’s internet economy is the envy of the world because it is built on a foundation of openness. The principles of net neutrality are fundamental to that openness and helped create investment on the edges of the network, which network operators responded to by building networks that allow consumers to access the services of their choosing. I believe that returning to that successful framework is the strongest foundation for broader investment in the internet economy.

I also believe that the hands-off policies of the past have left rural areas behind. In too many remote communities in this country, broadband service is not available. Reducing the oversight of the FCC over broadband service has not accelerated deployment in these areas. Moreover, it has made the FCC’s universal service programs pursuant to its authority under Section 254 of the Communications Act to assist with broadband deployment more legally tenuous because the statute itself defines universal service as an “evolving level of telecommunications service,” which is itself a Title II service.

In the end, I hope we can agree that we do need to get 100 percent of us connected to broadband because it is essential for modern life. This infrastructure effort has a clear historical precedent in the effort to ensure rural electrification a century ago. I am mindful that the effort to do this was not one that involved the deregulated private sector acting strictly on its own, but instead featured cooperatives along with publicly owned companies. I think this effort in the past is instructive and it should inform our work today.

Question 2: When the FCC replaced the heavy-handed Open Internet Order with the light-touch Restoring Internet Freedom Order in 2017, the move did not “end the internet as we know it,” as some feared. Has the internet been less free and open since the Open Internet Order was replaced with the Restoring Internet Freedom Order in 2017? If so, how?

I believe that there were negative consequences that followed from the decision of the FCC to repeal its net neutrality rules and reduce its oversight of broadband service. As a result of the repeal, the FCC lacked authority to intervene when firefighters in California found their service throttled when they were responding to wildfires. In fact, in its remand of the FCC’s decision, the D.C. Circuit found the agency’s “disregard of its duty to analyze the impact of the 2018 Order on public safety renders its decision arbitrary and capricious.”

In addition, there are stories of small providers that have faced higher pole attachment rates in the wake of the FCC's decision. For example, according to one filing in the FCC record, two wireless internet service providers had to slow or halt the deployment of fiber on poles because pole owners charged higher rates or refused to negotiate with them when broadband was no longer classified as a telecommunications service.

Meanwhile, academic research led by Northeastern University Professor David Choffnes reviewed crowdsourced data from the Wehe app and found that for mobile internet service providers in the United States, "we don't see evidence of internet service providers throttling only when the network is busy; as far as we can tell, it's 24/7, and everywhere." Professor Choffnes noted that this throttling created a "slippery slope," because "[t]oday it's video, but what is it going to be tomorrow? When internet service providers decide to take control and make decisions on behalf of consumers and/or content providers, what's going to be the fallout for those decisions? Is it actually in everyone's best interests?"

It is important to note that the above has been observed during a period when litigation over the topic of net neutrality has been ongoing and some states have had their own laws and regulations in place governing these matters. For example, California, Colorado, Maine, Oregon, Vermont, and Washington have passed state net neutrality laws while Hawaii, Montana, New Jersey, New York, and Rhode Island have put in place net neutrality contracting requirements. Meanwhile, in other states, legislation has been proposed over the past several years. As a result, internet service providers may have been cautious about their business practices during the time following the FCC decision to roll back its open internet policies. Finally, I should note that one consequence of the FCC's decision to relinquish its oversight over broadband is that the agency has less visibility into what is happening with broadband networks at a time when they are more important in our lives than ever before.

Question 3: Will you commit to ensuring the FCC does not factor political content or viewpoints when issuing licenses, making regulatory decisions, or approving mergers and acquisitions?

Yes.

Question 4: Will you commit to ensuring the continued independence of the FCC?

Yes.

Senator Shelley Moore Capito

Question 1: You state in your testimony that we need to make sure that 100 percent of the country has access to fast, affordable, and reliable broadband. As the floor manager of the infrastructure bill that was just signed into law, it looks like we are going to get a significant amount of money in my home state of West Virginia for broadband. How do we speed up deployment in my state to hit 100 percent?

Getting to broadband to 100 percent of us—everyone, everywhere—will take an all hands on deck approach, and if confirmed, I look forward to working with you to reach that goal.

One of the most important things that we have to get right is mapping. You simply can't speed deployment to unserved areas when you don't know with precision what is truly unserved.

For this reason, from the start of my tenure as Acting Chairwoman, I have prioritized mapping, by creating a Broadband Data Task Force to coordinate and expedite the design and construction of new systems for collecting and verifying new broadband deployment data, known as the Broadband Data Collection. The Broadband Data Collection is designed to create—for the first time—a standardized, data-based, and publicly accessible nationwide map of locations where broadband is truly available throughout the United States. But the maps will not be based solely on data from broadband service providers. Other federal agencies, state, local, and Tribal governmental entities, and consumers will all contribute information and data to help refine and validate the maps. If confirmed, I look forward with working with you and your constituents to get this right because that is how we will figure out where we need to target funds in West Virginia and nationwide.

Another important piece of the puzzle is building out networks that connect everyone. Thanks in part to your work, the Infrastructure Investment and Jobs Act will provide billions to connect currently unserved areas with high-speed quality broadband. This is a generational investment in broadband that can connect millions of people who currently lack access.

It is vitally important that the programs funded under the Infrastructure Investment and Jobs Act, including the Broadband Equity, Access, and Deployment Program, which will provide \$42.5 billion in grants to states, are coordinated with existing programs, including the FCC's Rural Digital Opportunity Fund and Alternative Connect America Model and the Department of Agriculture's Rural Utilities Service's programs. That's why on June 25, 2021, the FCC, NTIA and USDA entered into an Interagency Agreement that specifically "require[s] coordination . . . for the distribution of funds for broadband deployment." As a result, the FCC, NTIA, and RUS share information on a regular basis about our respective funding programs, including the entities seeking and receiving funding to provide service in a given area the speed and technology funded, and the terms and conditions of the funding under the law. In addition, the Department of Treasury has sought FCC input for the purposes of implementing the Coronavirus State and Local Fiscal Recovery Fund and the Coronavirus Capital Projects Fund. FCC staff also has engaged with representatives of the Department of Treasury, both separately and alongside NTIA and RUS representatives, to share information and insight on programs and identify coordination opportunities. I believe it is essential to make sure that all of these programs,

consistent with the law, operate in a complementary manner. At the same time, it is essential that those responsible for these programs—including the FCC—coordinate to ensure funding is directed to areas without adequate service and avoid unnecessary duplication. If confirmed, I pledge to have the FCC work with its federal partners to do so.

Finally, we can't forget that deployment is not sufficient if people can't afford it. That's why Congress created the Emergency Broadband Benefit Program and less than a year later, created the Affordable Connectivity Program in the Infrastructure Investment and Jobs Act. The Affordable Connectivity Program will provide qualifying low-income households a \$30 subsidy towards the monthly cost of a broadband plan, and households on Tribal lands or in high-cost areas can qualify for a \$75 per month subsidy. The FCC is hard at work preparing for the upcoming December 31, 2021 transition to the Affordable Connectivity Program. If confirmed, I look forward to developing outreach efforts so that this program is available for those who need it most.

Question 2: What is the FCC doing to make sure recipients of Universal Service Fund (USF) support are qualified and are deserving of the funding they receive?

Many recipients of high-cost funding from the Universal Service Fund receive 10 years of support, including bidders authorized to receive Rural Digital Opportunity Fund support. That is why it is so important to make sure they are qualified for the funding they receive. The FCC staff have put significant effort into ensuring that carriers seeking support from RDOF are capable of providing service before any funding goes out the door.

Under the Communications Act, states have the primary responsibility to designate carriers in their state as eligible for universal service funding. The process for receiving this designation, known as Eligible Telecommunications Carrier status, is different in different states but generally operates under a public interest standard. The FCC cannot provide a carrier high-cost support until it has received an ETC designation. However, if a state declines jurisdiction, the FCC may designate carriers as ETCs.

For the RDOF Phase I auction winning bidders, once a carrier has been designated as an ETC, the FCC must review and approve a long-form application that is submitted to the agency. I have directed staff to conduct a searching technical, financial, and legal review of each of the long-form applicants, because we want to make sure that applicants are qualified before we commit to paying them for 10 years to deploy broadband. More than 50 staff from across the agency, including engineers, financial analysts, and attorneys have been working on the program, combing through network diagrams and financial statements to doublecheck qualifications of winning bidders in the auction. On top of this, before the FCC starts actual writing checks to the provider, they must receive a letter of credit and a bankruptcy opinion letter, so that if the provider goes out of business, the FCC can recover the lost support from the financial institution that issued the letter of credit.

However, accountability measures do not end when funding begins. In RDOF, carriers must meet interim and final deployment milestones and report the locations that they have deployed to in the public High Cost Universal Broadband database. In addition, staff will verify

that the carriers are actually serving the locations they claim to serve, through audits and other accountability measures. If the provider fails to meet their interim deployment obligations, the FCC withholds an increasing amount of support depending on how far they are out of compliance. If a provider fails to meet final deployment obligations, they must pay the Universal Service Fund back approximately twice the amount they received for the location, to ensure that they face consequences for failed deployment. I believe these accountability measures are important and going forward they should be a feature of similar Universal Service Fund efforts.

Question 3: Big tech makes a lot of money off advertising over broadband networks. What are your thoughts on requiring them to help pay for the deployment of high-speed broadband?

Congress established the Universal Service Fund in the Telecommunications Act of 1996. As I testified, the idea then was that a fee on consumer long distance phone bills would help support the upkeep of communications networks designed for voice services throughout the country. A lot has changed since that time. As our networks and the ways we communicate have changed, the high-cost Universal Service Fund has evolved well beyond support for voice services and analog-era communications. It now also supports broadband in rural areas. This makes sense given that it is the most important communications infrastructure of our time. However, it also would make sense for Congress to take a fresh look at the system to reflect the changes of the last quarter of a century. With respect to the contribution mechanism, I believe that the idea of assessing major technology companies as you suggest is intriguing, though it would likely require a statutory change. If confirmed, I would be willing to work with you and others in the Congress on this or other proposals to update our system for universal service.

Question 4: What is the status of updating the FCC Broadband maps? Once completed, how do we keep them up to date?

I believe the FCC needs accurate information about where broadband service is and is not available across the country. With better data and more precise maps we can target our policymaking efforts and financial resources, including the FCC's universal service funding and the funding included in the recently enacted Infrastructure Investment and Jobs Act, to those unserved and underserved communities where support is needed most.

As you know, the Broadband DATA Act was signed into law in March of 2020 and directs the FCC to improve its mapping efforts. Then, in December of 2020, Congress provided the FCC with an appropriation to help fund implementation of this law.

As a result, in my first meeting as Acting Chairwoman, I announced the formation of the Broadband Data Task Force. This group was designed to help coordinate and expedite the design and construction of new systems for collecting and verifying new broadband deployment data. While it was made clear that we had an enormous amount of work to do, I am pleased to report that we have made significant progress since January.

The FCC has stood up the data architecture and systems required for the receipt of broadband data from a wide variety of sources and has completed several aspects of the data

collection system design. This is important because when I took the reins at the agency these systems were not in place and having them is a prerequisite for developing the kinds of data collection and mapping required under the Broadband DATA Act.

In addition, the FCC has awarded a competitively bid contract to create and maintain the Broadband Serviceable Location Fabric, which is the foundation for its mapping efforts. The Fabric was specifically required in the Broadband DATA Act. The law also specifically required that the FCC procure the Fabric through the traditional federal government contracting process. This has presented a challenge because, while the agency has awarded the contract, another bidder has protested at the GAO. As a result, the contract is stayed while the GAO has a 100-day period to review the process.

While this effort is underway at the GAO, the agency has worked on other efforts to support the Broadband DATA Act and its objectives. This includes writing the rules for the challenge and verification processes required under the law and working to update the FCC Speed Test App contract so that it can be more broadly used by consumers to support mobile challenges and data gathering through crowdsourcing. The agency also is moving forward with procurements to implement the technical assistance functions for providers, state, local, and Tribal governments, and consumers.

As to the precise timing of our collection and release of maps, we have many workstreams in motion to make that happen as quickly as possible. However, as noted above, the ongoing GAO review of the protest associated with the procurement of the Fabric makes identifying a precise date difficult. Nonetheless, we are building and testing the new systems we have and finalizing data specifications and challenge procedures. To this end, the FCC will shortly open its next Form 477 data filing window, which will be the last submission under the current data collection paradigm without carriers having access to the Fabric. However, as soon as the Fabric is compiled by the vendor and reviewed by FCC staff, the agency will release a public notice providing details on implementation of the Fabric and share the geocoded location data with broadband providers so their fixed broadband availability data can be easily ingested into our updated broadband data collection. At the same time, the agency will provide information regarding the process for FCC review and approval of third-party speed test applications for use in the mobile challenge process and will complete development and testing of the challenge and crowdsource data collection components.

The maps that the agency eventually develops will ultimately be kept up to date through the biannual filing process for carriers—and related challenge processes—contemplated in the Broadband DATA Act. I believe it is essential that the FCC do our work now carefully so that the agency has a strong platform on which to evolve and iterate the maps it develops.

While planning for all this work has been underway, the FCC has worked with a number of broadband providers to test our systems and develop a prototype for improved mapping at the agency. As part of this effort, on August 6, 2021, the FCC released new 4G LTE wireless coverage maps based on the new updated parameters, using data submitted voluntarily by AT&T Mobility, T-Mobile, US Cellular, and Verizon Wireless. This resulted in a public map that shows, for the first time, nationwide 4G LTE mobile coverage according to the updated

parameters that were uniformly used by every carrier submitting data. This map is now available at www.fcc.gov/BroadbandData/MobileMaps.

If confirmed, I pledge to keep you—and my colleagues at the agency—apprised of further efforts to implement the Broadband DATA Act and further develop the mapping the law contemplates.

Question 5: Unlicensed and shared spectrum are crucial to advancing innovation and entrepreneurship. What’s next from your perspective in supporting innovation in unlicensed and shared bands?

I agree that unlicensed and shared spectrum are crucial for advancing innovation and entrepreneurship. By some recent estimates, unlicensed spectrum has added more than \$500 billion to the economy annually and as much as \$2 trillion globally. It has democratized internet access, helped carriers manage their networks, and fostered all kinds of innovation. In fact, it is the perfect sandbox for experimentation, because access does not require contract or permission.

As exciting as this is, it means these airwaves are getting crowded. Already our current Wi-Fi bands are congested because they are used by more than 9 billion devices. By the end of this decade, we will see billions more devices connecting to our networks through the internet of things. It is clear that we are going to need a significant swath of unlicensed spectrum to keep up with demand.

We are making progress. Last year, the FCC opened the 6 GHz band for expanded Wi-Fi use. In some cases, our rules require new Wi-Fi devices to protect existing spectrum users by employing an automated frequency coordination system. In September, the FCC adopted a public notice to begin the process for authorizing these AFC systems. The window for submitting applications for authorization as an AFC system is open now, with initial proposals due by November 30, 2021. These proposals will be open for public comment and then, if conditionally approved, will be open for a public trial period to provide parties an opportunity to check the accuracy of the system. Authorizing AFC systems will be a big step toward enabling the deployment of 6 GHz devices around the country in a way that opens up the benefits of this new unlicensed frequency band for consumers while also ensuring protection of incumbents.

In addition, we are continuing to explore opportunities to increase the spectrum resources we devote to Wi-Fi. To this end, the FCC has pending further rulemakings involving the 5.9 GHz and 6 GHz bands seeking comment on the potential for further unlicensed use.

Finally, to advance innovation and entrepreneurship through spectrum policy, I believe we need to embrace the range of new wireless access technologies available, including through spectrum sharing. To understand how, it is instructive to consider the model the FCC created in the 3.5 GHz band several years ago. Here the agency took 150 megahertz of spectrum and opened it up to a mix of government, licensed, and unlicensed uses. It did this by proposing a spectrum access database to dynamically manage the different kinds of wireless traffic using these airwaves. This multi-tiered approach to spectrum access was not just unprecedented—it was creative, efficient, and forward looking. Today this band accommodates important

government radar operations that protect our safety while also making much-needed mid-band spectrum available to advance our wireless leadership. If confirmed, I will seek out further opportunities for these kinds of creative efforts to promote innovation through efficient spectrum use.

Senator Rick Scott

Question 1: The FCC has authority over broadcast licenses. As a nominee for this bipartisan commission, do you believe the government has the authority to censor opinions?

No. FCC authority is limited by the First Amendment and Section 326 of the Communications Act.

Question 2: As Congress gives out billions in new funding to build out broadband through the FCC, how would you ensure that federal taxpayer dollars spent on broadband buildout projects are protected from fraud, waste, and abuse?

While the Infrastructure Investment and Jobs Act does not direct broadband deployment funds to the FCC, the FCC's existing programs feature safeguards that might be instructive to help protect against fraud, waste and abuse.

For example, in the FCC's Rural Digital Opportunity Fund, carriers must meet interim and final deployment milestones and report the locations that they have deployed to in a public High Cost Universal Broadband database. FCC staff also verify that the carriers are actually serving the locations they claim to serve, through audits and testing of the speed and latency of their offerings. If the provider fails to meet their interim deployment obligations, the FCC withholds an increasing amount of support depending on how far they are out of compliance. If a provider fails to meet final deployment obligations, they must pay the Universal Service Fund back approximately twice the amount they received for the location, to ensure that they face consequences for failed deployment. I believe these accountability measures are important and if confirmed, I would be willing to further discuss them with your office and the NTIA, which will distribute the bulk of the broadband deployment funds under the Infrastructure Investment and Jobs Act.

Question 3: Do you support low earth orbit satellites as a technology to bridge the digital divide where other technologies may not reach? Do you believe that private investment in this technology will help reduce the need for the U.S. government to provide billions in taxpayer-funded broadband buildout?

I believe next-generation satellite technologies have the potential to help close the digital divide in unserved areas of the United States. Moreover, I think many of these services may be able to deploy more rapidly than terrestrial alternatives in hard-to-reach areas. The cost of customer premises equipment for these technologies, however, which is decreasing, may create challenges for adoption.

Recognizing the potential of these new constellations of satellites in low earth orbit to deliver internet access, the FCC has worked to ensure the right conditions for these new technologies to succeed. In fact, the FCC's recent public notice announcing a new processing round in the V-band has garnered applications from nine constellations for more than 38,000 satellites. In light of this kind of interest, I believe this is an area where there will be further

growth and opportunities to use this technology to serve many more places in the United States and worldwide.