

**OVERSIGHT OF THE
FEDERAL COMMUNICATIONS COMMISSION**

HEARING

BEFORE THE

**COMMITTEE ON COMMERCE,
SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE**

ONE HUNDRED THIRTEENTH CONGRESS

FIRST SESSION

MARCH 12, 2013

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED THIRTEENTH CONGRESS

FIRST SESSION

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OVERSIGHT OF THE FEDERAL COMMUNICATIONS COMMISSION

TUESDAY, MARCH 12, 2013

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Committee met, pursuant to notice, at 2:52 p.m. in room SR-253, Russell Senate Office Building, Hon. Mark Pryor, presiding.

OPENING STATEMENT OF HON. MARK PRYOR, U.S. SENATOR FROM ARKANSAS

Senator PRYOR. I am going to go ahead and call us to order here, so why doesn't everybody find their seats, please. We will go ahead and call this meeting to order.

I want to say thank you. Chairman Rockefeller is on his way with the rest of the Democrats. So, Senator Thune, this is the moment we have been waiting for, right? Isn't that right?

[Laughter.]

Senator THUNE. Let's do some business, Mr. Chairman.

Senator PRYOR. Yes, now we can do some good around here.

Senator THUNE. Mark, you didn't get invited to the lunch?

Senator PRYOR. No. They kicked me out of the lunch a long time ago.

No, actually, Senator Rockefeller wanted me to come to get this launched because we know that several Members here and several Members of the Commission have tight schedules. So let me just say—I am not going to try to give Senator Rockefeller's opening statement. What I will do is—we will just proceed until he is able to get here.

So let me just say, for my part, I am pleased to serve as Chairman of the Communications, Technology, and Internet Subcommittee. And, together with Ranking Member Wicker and all other of the Committee and Subcommittee members, I want to look forward to a bipartisan exchange of views on all the key policies that are in that Subcommittee's jurisdiction and also that the FCC has jurisdiction over, as well.

In today's fast-changing information and communications technology environment, it is vital that the Committee and the Subcommittee take a fresh look at the regulatory consumer landscape. That is why I announced yesterday that the Subcommittee will hold a series of hearings to examine the state of various communications markets. I think all the Committee and Subcommittee members will have the benefit of hearing from stakeholders on the

opportunities and the challenges that they face. So we are going to do Subcommittee hearings on wireless communications, wired communications, video, and rural communications. So all of these are kind of “state of” hearings to find out what the lay of the land is right now.

As the Subcommittee begins its examination, I believe we should keep several key principles in mind. Foremost, we need to ensure that investment continues to support the expansion of technology advancements in broadband connectivity. This includes our commitment to ensuring access to robust broadband to support 21st-century smart choices in things like health care, education, energy, and job creation.

We must also make sure that consumer confidence in our communications networks and policies is there. This includes continued work on practical steps for online privacy and safety. And we must aggressively fight fraud and abuse.

I want to thank all five FCC Commissioners for being here today. I know you all have a lot on your plate, and I appreciate hearing from you on the issues before your agency. And I am particularly interested in your work on the pending broadcast television incentive auctions, a topic which the Subcommittee is also planning to explore.

I was pleased that the February 2012 public safety spectrum legislation provided the Commission with the authority to conduct incentive auctions. This authority hopes to bridge the need for additional wireless spectrum through a voluntary program under which the broadcasters can trade spectrum usage rights in exchange for a share of the proceeds. The proper groundwork for these new auctions is essential to ensure that the full benefit of this new authority is realized by all stakeholders.

I expect the FCC’s work on these auctions to be faithful to the statute, which I know it will be. Congress tried to carefully balance competing concerns in the statute to free up much-needed spectrum for wireless broadband while ensuring a healthy future for the broadcast industry and while recognizing the greater goal of modernizing public safety communications for mobile broadband.

Which brings me to Senator Rockefeller’s favorite topic, which is FirstNet. These incentive auctions should provide a critical \$7 billion in dedicated funding for a nationwide wireless broadband network for public safety. This network will provide a new era of life-saving communication and efficiencies for first responders. It will equip our firefighters, police officers, and medical responders with the tools they need to communicate with each other in real time during crises around the country and across state lines.

Finally, I want to touch on your ongoing implementation of the 21st Century Communications and Video Accessibility Act. As you know, I was the primary of this legislation. The CVAA is incredibly important for the economy. Already, millions of Americans are able to more fully contribute to the economy because of the law. I will continue to closely monitor your work, and I look forward to doing that. And I look forward to hearing from you and get an update on your efforts.

In closing, there are a host of other issues, from being vigilant against consequences of texting while driving to universal service

to the future of rural communications networks. And I look forward to reviewing with my colleagues all of these issues and look forward to working with the Commission on all of them.

Senator Thune, if you are ready, I will turn it over to you.

**STATEMENT OF HON. JOHN THUNE,
U.S. SENATOR FROM SOUTH DAKOTA**

Senator THUNE. Great. Thank you, Mr. Chairman. I want to thank you and Chairman Rockefeller for holding this hearing and want to welcome Chairman Genachowski and all the members of the Commission before us today. Thank you all for being here.

This is an important subject matter, and your Subcommittee is obviously going to be a very busy one. And, obviously, as you can tell by the turnout today, a lot of interest. I am glad to see the great representation we have from members on our side. And I hope that we get an opportunity to have a little interaction with the Commissioners as we move forward.

We are living in the middle of a digital revolution, which is being powered, in large part, by the huge investments made by the broadband industry. There is enormous potential for job creation and innovation in the broadband, Internet, and technology sectors, and this potential may be most evident in the area of mobile broadband.

According to a recent Cisco report, mobile data traffic in the United States grew 62 percent last year, and by 2017 there will be a thirteenfold increase worldwide. By one estimate, the Nation's mobile broadband industry directly or indirectly supports 3.8 million jobs, contributing more than \$195 billion to the U.S. gross domestic product and driving \$33 billion in productivity improvements in 2011 alone.

Unfortunately, a single point of failure under the government's control could jeopardize this great potential for job creation and innovation, and that is access to wireless spectrum. Mobility is driving the innovation economy, and spectrum is what fuels wireless mobility. Without enough spectrum, the private sector will not be able to keep pace with consumer demand, which is growing exponentially. That is why we must make it a priority to increase the availability of spectrum for commercial uses as quickly as possible and to do so in collaboration with industry and government stakeholders.

More broadly, I believe we also must focus on establishing a 21st century legal and regulatory structure that serves the purposes of our 21st century economy. It is time for this committee to take a look at modernizing our nation's rules and regulations to better reflect today's converged marketplace. Our technology and telecommunications sectors have been profoundly changed by the Internet, yet much of our country's communications laws were written in a pre-Internet world.

These sectors are characterized by extremely dynamic companies, and we must ensure that the FCC is as nimble as they are. It has been 23 years since this FCC was last reauthorized by Congress, and it may be time to develop a new FCC reauthorization bill to ensure the Commission is an efficient and truly modern regulator,

one that is a reliable resource for Congress and an effective agency for American citizens and industry alike.

While I am very enthusiastic about the great potential of the digital revolution, I want to make sure that all consumers, including those in our rural communities, are able to enjoy the economic and societal benefits of the Internet. So I want to thank Chairman Rockefeller. He and I share the same goal of getting rural America connected to advanced communications. And some of the best network infrastructure in the world exists today in some of the most unlikely places due in no small part to your leadership and keen interest in making rural America a priority.

Last, I just want to mention the issue of sequestration. I have been disappointed by the administration's politically motivated scare tactics on this subject. And I hope that an independent commission like the FCC will not be just another agency following the White House's lead in trying to find cuts that can trigger a press release before looking to internal cost-saving measures that are less newsworthy.

And so, Chairman Rockefeller—when he gets here—I look forward to working with him and with the Commission to unleash the great potential of the American people to create jobs and to spur innovation for the 21st century economy.

So thank you, Mr. Chairman. And I look forward to hearing from our panel today.

Senator PRYOR. Thank you, Senator Thune.

I know that we also, in addition to Senator Rockefeller, we want to recognize Senator Wicker when he arrives. But since they are not here, let's go ahead and start with our panel.

And the way that we have this set up today is we have all five commissioners here, and we very much appreciate your attendance. But what we are going to ask is we are going to ask Chairman Genachowski to make an opening statement and also Commissioner McDowell to make an opening statement. And in the interest of time, we will not ask Commissioners Clyburn, Rosenworcel, or Pai to make opening statements, but certainly they will be here and available to answer questions.

So, Chairman Genachowski, thank you for being here.

**STATEMENT OF HON. JULIUS GENACHOWSKI, CHAIRMAN,
FEDERAL COMMUNICATIONS COMMISSION**

Mr. GENACHOWSKI. Thank you, Chairman Pryor. Thank you, and congratulations on the chairmanship of the Subcommittee. It has been a privilege working with you for the last several years; Senator Thune, you, as well. And I have gotten to know many of you on the Committee over the last few years, and I see some new faces. And I am looking forward to working together.

Let me briefly start with two actions the Commission took today: first, approval of the T-Mobile-MetroPCS deal in the area of mobile and spectrum. Senator Thune, as you mentioned, this is good news for our mobile economy and mobile consumers.

Second, I wanted to mention the issue of rural call completion, which a number of you have raised with me over the last several months. Our enforcement bureau took a significant action today. The issue here: when consumers can't receive calls that are made

to them, it is a serious threat both to public safety and also to our economy. Today we announced our first major enforcement action in this space, a \$1 million consent decree. We will continue to follow the facts wherever they lead, and we will hold responsible parties accountable.

Now, since we last appeared before this committee, the Commission has been hard at work to maximize the benefits of broadband for our economy, our global competitiveness, and Americans' daily lives.

And we continue to receive news that the ICT sector, what some call the broadband economy, is thriving in the U.S. Over the past few years, the U.S. has regained global leadership in mobile, with as many 4G LTE subscribers as the rest of the world combined. And while mobile infrastructure investment in Europe and Asia has been roughly flat since 2009, annual mobile investment in the U.S. is up 40 percent over this period. Last year, more than 19 million miles of fiber were laid in the U.S.—more than all of Europe combined and the best year in the U.S. since 2000.

The FCC continues to make progress on key elements of our strategic agenda, as laid out initially in our National Broadband Plan. I will touch on just a few here.

Since the Committee's last FCC oversight hearing, we are moving forward with implementation of the major spectrum and public safety law that Congress passed last year, originating on a bipartisan basis in this committee.

Last September, we launched our first incentive auctions proceeding—a comprehensive proposal to implement the law, free up significant spectrum, and designed to help drive continued U.S. leadership, and, as I said, free up the spectrum that our mobile economy needs. We are on track to run the world's first incentive auction next year.

Of course, FirstNet is another important piece of the new law. The Commission is taking its FirstNet responsibility seriously and has met all of its obligations under the statute on schedule.

Another key public safety priority for the Commission is improving the resiliency of our networks in times of emergency. Next week at our Commission meeting, we will be launching a rule-making to strengthen 911 reliability.

Our work to enhance cybersecurity continues, as well, building on smart actions last year to address challenges relating to botnets and Internet routing and DNSSEC. We are now focusing on practical steps to improve the security of wireless devices, apps, and networks.

Universal service reform continues to move forward. With bipartisan support from Congress, we adopted last year a major transformation of the multibillion-dollar program that puts us on the path now to broadband access for all Americans by the end of the decade.

This past July, we rolled out the first phase of the Connect America Fund, supporting projects to bring broadband to nearly 400,000 Americans in unserved rural communities across 37 states. In October, we held the first round of the Mobility Fund, an unprecedented reverse auction that used \$300 million to efficiently

expand wireless coverage to 84,000 unserved road miles across 31 states.

Of course, in this fast-moving sector where global competition is fierce, challenges remain. We need to continue to free up more spectrum for mobile broadband. We need to continue to drive increasing broadband speed and capacity, including to our schools and libraries and other anchor institutions. There is a big need and opportunity around education technology.

We need to continue pushing for increased broadband adoption. We must continue to promote Internet freedom and openness at home and abroad. We need to continue updating our policies for the broadband era, a process kick-started with our work on the National Broadband Plan in 2009–2010. We need to promote media diversity. We need to continue to promote vibrant and healthy competition and protect and empower consumers.

In my written statement, I have outlined many of the actions we have launched to tackle these challenges, such as the Gigabit Cities Challenge to promote a critical mass of 1-gigabit innovation hubs across America, and the Technology Transitions Task Force to modernize the Commission's rules.

Let me close by briefly addressing sequestration. The FCC is currently operating at its lowest employee levels in many years. I do have serious concerns that the cuts ongoing sequestration will require will harm the ability of the FCC to deliver on its vital mission, including universal service, public safety, spectrum management, and consumer protection.

I look forward to continuing to work with this committee on these and other issues, and I look forward to your questions. Thank you.

[The prepared statement of Mr. Genachowski follows:]

PREPARED STATEMENT OF HON. JULIUS GENACHOWSKI, CHAIRMAN,
FEDERAL COMMUNICATIONS COMMISSION

Chairman Rockefeller, Ranking Member Thune, Members of the Committee, thank you for the opportunity to be here today.

Let me begin by acknowledging Chairman Rockefeller's recently announced decision to retire from the Senate in 2014. From E-Rate, which has helped connect almost every classroom in America to the Internet, to FirstNet, which will help our first responders do their jobs better and make our communities safer, your legacy of improving the lives of the American people through communications technology is remarkable and enduring.

Congratulations to Senator Thune on becoming Ranking Member of this Committee. You bring deep knowledge and years of experience to this important position, and the Commission looks forward to being a resource for you and your staff.

Since we last appeared before you, the Commission has been hard at work to maximize the benefits of broadband for our economy, our global competitiveness, and all Americans' daily lives. And we continue to receive news that the ICT sector—what I've been calling the broadband economy—is thriving.

Over the past few years, the U.S. has regained global leadership in mobile, with as many LTE subscribers as the rest of the world combined. While mobile infrastructure investment in Europe and Asia has been roughly flat since 2009, annual mobile investment in the U.S. is up 40 percent over this period. And last year, more than 19 million miles of fiber were laid in the U.S., more than all of Europe combined, and the best year in the U.S. since 2000.

The FCC continues to make progress on key elements of our strategic agenda as laid out initially in the National Broadband Plan. I'll touch on just a few here.

Since this Committee's last FCC oversight hearing we are moving forward with implementation of the major spectrum and public safety law Congress passed last year, originating on a bipartisan basis in this Committee.

Last September, we launched our incentive auctions proceeding—a comprehensive proposal to free up significant spectrum and designed to help drive continued U.S. leadership in mobile—and we’re on track to run the world’s first incentive auction next year. We are committed to ensuring healthy financial incentives for broadcasters to facilitate their participation.

Of course, FirstNet is another important piece of the new law. The Commission is taking its FirstNet-related responsibilities seriously and has met all of its obligations under the statute on schedule.

Another key public safety priority for the Commission is improving the resiliency of our networks in times of emergency. In January, we issued a report detailing vulnerabilities in our 9–1–1 systems that were exposed by the 2012 Derecho Storm, and last month we launched a series of field hearings to identify steps to improve network reliability and resilience during and in the aftermath of disasters. And next week we will launch a rulemaking to strengthen 9–1–1 reliability and resiliency.

Our work to enhance cybersecurity continues. Building on smart actions developed with our multi-stakeholder Communications Security, Reliability and Interoperability Council to address challenges related to botnets, Internet routing, and Domain Name System (DNS) security, we’re now focusing on practical steps to improve the security of wireless devices, apps, and networks.

Universal service reform continues to move forward. With bipartisan support from Congress, we adopted last year a major transformation of the multi-billion dollar program that puts us on the path to broadband access for all Americans by decade’s end. This past July we rolled out the first phase of the Connect America Fund, supporting projects to bring broadband to nearly 400,000 Americans in unserved rural communities across 37 states. In October, we held the first round of the unprecedented Mobility Fund reverse auction, which used \$300 million to efficiently expand wireless coverage to 84,000 unserved road miles across 31 states. In December, we adopted major reforms of USF’s rural health care program, creating the Healthcare Connect Fund to connect thousands of rural and urban healthcare providers across the country. And we’re making good progress finalizing the cost model for the long-term Connect America Fund, putting the Commission on track to launch this landmark initiative—the largest broadband infrastructure program ever established—later this year.

Of course, in this fast-moving sector, where global competition is fierce, challenges remain.

We need to continue to free up more spectrum for mobile broadband.

That’s why we unleashed 30 MHz of WCS spectrum and 40 MHz of AWS–4 spectrum last year. And that’s why we’re pushing forward with the auction of 75 MHz of additional spectrum and new rules we proposed in December to enable widespread deployment of small cells in the 3.5 GHz band, which would unleash an additional 100 MHz of spectrum for mobile broadband. These actions have us on track to meet our ambitious goal of freeing up 300 MHz of spectrum for broadband by 2015.

We need to continue to drive increasing broadband speed and capacity, including to our schools, libraries, and other anchor institutions.

That’s why earlier this year I issued the Gigabit Cities Challenge, which calls for at least one innovation hub with ultra-high-speed broadband in every state by 2015, and why the Commission is working with municipalities and broadband providers to meet this challenge. To promote investment in faster wired and wireless networks, we continue to seek ways to remove barriers to broadband buildout, building on policies like our tower siting shot clock; our order to ease access to utility poles; and “Dig Once,” which encourages laying fiber conduit any time roads are being constructed or repaired.

We need to continue pushing for increased broadband adoption. That’s why we recently announced a partnership with HUD to extend greater digital literacy training to more than 4 million families living in public housing.

We must continue to promote Internet freedom and openness at home and abroad. At the World Conference on International Telecommunications in Dubai in December, the U.S. fought attempts by a number of countries to give a U.N. organization, the International Telecommunication Union, new regulatory authority over the Internet. Ultimately, over the objection of the U.S. and others, 89 countries voted to approve a new treaty that would strengthen the power of governments to control online content. The Internet should remain free of gatekeepers, and I am committed to working with my fellow Commissioners, Congress, the Administration, and private sector stakeholders to preserve Internet freedom and openness and to resist efforts to balkanize the Internet.

We need to continue updating our policies for the broadband era—a process kick-started by our work on the National Broadband Plan.

Among many actions, we've already overhauled intercarrier compensation to eliminate obstacles to deployment of all IP-networks. In December I launched the Technology Transitions Task Force to conduct a data-driven review and provide recommendations to modernize the Commission's rules. And just last week I circulated a NPRM proposing that VoIP providers receive direct access to numbers. We're working to accelerate technology transitions while recognizing that these transitions do not change the Commission's core responsibilities under the Communications Act: universal service, promoting competition, consumer protection, and public safety.

We need to promote media diversity.

The Commission recently approved the largest expansion of community radio in U.S. history. We are also undertaking our Congressionally-mandated review of our media ownership rules. We expect to receive a study on the effects of cross-ownership rules on minority ownership and newsgathering, and this will enhance the record in the Commission's proceeding. As the Commission considers the issues before it, goals that are particularly important include guarding against excessive media consolidation, promoting ownership diversity, enabling robust local news for all communities, and fostering economic growth and opportunity.

And we need to continue promoting vibrant and healthy competition and protecting and empowering consumers through strong actions like our data roaming rules, recently upheld by the D.C. Circuit.

Let me close by addressing sequestration. The FCC is currently operating at its lowest staffing levels in many years. I have serious concerns because the ongoing sequestration cuts will harm the ability of the FCC to deliver on its vital mission, including universal service, public safety, spectrum management, and consumer protection.

I look forward to continuing to work with this Committee on these and other issues and I look forward to your questions.

Thank you.

Senator PRYOR. Thank you.

And, Mr. Chairman, because of our delay, we went ahead and started. And I can either recognize Commissioner McDowell right now and give you a few moments or I could recognize you for your opening statement. Which do you prefer?

The CHAIRMAN. I think that second idea is sensational.

Senator PRYOR. Of recognizing you for your opening statement?

The CHAIRMAN. Right. Right.

[Laughter.]

Senator PRYOR. Mr. Chairman, you are recognized.

**STATEMENT OF HON. JOHN D. ROCKEFELLER IV,
U.S. SENATOR FROM WEST VIRGINIA**

The CHAIRMAN [presiding]. OK. I apologize.

Communications technology obviously is reshaping every aspect of our society. I believe that this change is overwhelmingly positive. But, as last week's hearing on cybersecurity reinforced, this change is not without substantial risk to our national and economic security. Just as harnessing technological innovation is crucial to our economic future, addressing the dangers of a completely interconnected world is just as critical.

Cybersecurity is one of the great. I have two speeches about cybersecurity, and this is the right one for here.

[Laughter.]

The CHAIRMAN. It is one of the great national security challenges that we face. It is the main one that we face. It is going to keep getting bigger.

At an intelligence briefing this morning from all heads of the intelligence community, they are scared to death of it. Everybody is just sort of taking it for granted somebody is going to fix it. And

we can't get legislation passed. And we have to. And John Thune and I and Dianne Feinstein and Saxby Chambliss and Tom Carper and Dr. Coburn are all going to work together this time—three committees working together.

I believe that two other areas are absolutely critical for government and industry to come together to address some pressing needs: first, the construction of a nationwide interoperable public safety network that our first responders are owed and have been given under law. Second, we must make sure that every child in this country is prepared to compete in the global economy. And that means having access to the Internet and all innovations deriving from the Internet.

As most of you have heard me say, the job of being an FCC commissioner is surely one of the hardest, most difficult, perilous jobs in all of Washington. But then again, we just had our caucus lunch with the President, so I will modify that a little bit.

[Laughter.]

The CHAIRMAN. Your actions affect how we communicate, what we see on television, the deployment of new technologies and interactive services.

Making sure that our first responders have the spectrum and communication networks that they need to keep us safe is, frankly, an incredibly proud achievement for this committee. I think it is the defining piece of legislation for this committee. Congress allocated \$7 billion for the construction of this network, which will come from the auction proceeds of spectrum voluntarily—you can spell that if you want—offered up by broadcasters.

The agency's incentive auction proceeding is one of the agency's most important undertakings in its history. I know that this is a complicated proceeding—believe me, I know that—that affects whole industries. But I believe that the auction must be driven by one single principle: It must maximize the resources available for the construction of a nationwide interoperable broadband network for first responders, on which we have already voted.

I urge the Commissioners to move forward on an aggressive timetable to get this proceeding done. I have no doubt that when we are completed on that, the public safety network will save a whole lot of lives. And I really mean that. This is an area where government and private sector must continue to work collaboratively to solve the most important public safety issue that we, in fact, face.

Just as we are future-proofing our public safety, we must also future-proof our efforts to make sure every child in America has access to cutting-edge technology.

Mr. Chairman, I apologize for not starting out by recognizing you, who I have now double-inconvenienced.

[Laughter.]

The CHAIRMAN. As part of the Telecommunications Act of 1996, Olympia Snowe and I created a little-known program called the E-Rate. I thought it was a toy at first, early in the legislation. I believe that this program is incredible. Our little provision helped drive the broadband revolution in this country by exposing a generation of kids to the power of the Internet. It is just an unbelievable revolution—unbelievable revolution.

The E-Rate program has fundamentally transformed education in this country. We have connected our most remote school areas and libraries to the world. Why libraries? Because adults aren't in elementary school but they can go to libraries. The E-Rate has enabled schoolchildren across this country to participate in the information society.

And I have seen firsthand the benefits of the E-Rate in my state, which is not a rich state. The impact of the E-Rate in our schools has been amazing. More than 92 percent of classrooms have Internet access. You just have to have an understanding of what that means. But, then again, I think I remember that when we started, California, only 15 percent of their classrooms had access, which surprised me. Anyway, 92 is good, and we have to get better.

But as impressive and important as this statistic is, basic Internet connectivity is not sufficient to meet our 21st century educational needs. I repeat that: It is not sufficient for our future. As every educator knows, digital information and technology will continue to play an increasing role in education, so we need to think about how we are going to meet the broadband infrastructure needs of our schools and libraries. We need to think big about the future of E-Rate. Simply put, we need to create E-Rate 2.0. We need to fund and adapt E-Rate to meet the needs of a data-driven society.

By the end of this decade, I believe that every school in America should have 1 gigabit of connectivity. And if every coffee shop in America can offer wireless connectivity, then, by golly, every school in America should be able to offer it, as well. We owe this to our children.

I end simply by this. Actually, it is more than this.

In 1996, everyone dismissed the need for the E-Rate. Telecommunications companies took the FCC to court over the program many times. They all swore in written letters that they would not take us to court. They all took us to court. And they all lost. It was wonderful.

[Laughter.]

The CHAIRMAN. We have two decades of proof that the E-Rate has worked. It enabled an education revolution. It exposed a generation to the power of information and learning. It literally connected the least among us to the world in a way never before possible.

So today I urge the FCC and industry to join us in an effort to make sure that every child in America has a bright future, that every child has access to the transformative power of technology.

And I thank you for your courtesy and patience.

OK, we are going to go to Senator Wicker.

**STATEMENT OF HON. ROGER F. WICKER,
U.S. SENATOR FROM MISSISSIPPI**

Senator WICKER. Well, thank you. Briefly, then, Mr. Chairman, thanks for holding the hearing.

And welcome to the Commissioners. Appreciate your being here. And I appreciate the opportunity to discuss not only the wide array of issues before you but also ways that Congress can work in conjunction with the Commission to ensure that quality broadband ac-

cess is delivered to all corners of our nation, particularly rural areas like my home state of Mississippi and the Chair's home state of West Virginia.

To achieve this goal, I believe we must ensure that there is a level playing field for all broadband providers. We must seriously examine the need to modernize our nation's telecommunication laws, particularly in the ultra-competitive video marketplace, to create a landscape that will foster the flexibility necessary to provide the best service and most competitive rates to consumers, thereby maximizing broadband adoption.

As we continue to work our way out of the still-ailing economy, it is imperative that we focus on one of the few sectors of the economy that has grown: the telecommunications, media, and technology industries. With its virtual on-ramps to unlimited information and boundless potential as a tool for business, for education, health care, and others, broadband is providing the seeds of economic development for the 21st century workforce.

It is the responsibility of Congress and of the Commission to help foster continued growth and innovation. I look forward to the hearing today on how we might best achieve this goal.

And I look forward to working with all the members of this committee in my new role as Ranking Member of the Communications Subcommittee. I am committed to working with my colleagues, including Senator Pryor, my Chair, to help ensure that our Committee fully exercises its oversight, shines much-needed light on these important issues, and that our panel is fully engaged in helping with our broadband and with economic growth.

So thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Wicker.

And now, Commissioner McDowell. And the Chairman has already given his testimony, and I obviously apologize to you particularly for that.

And Clyburn, Jessica, and Ajit, as it says here, evidently aren't giving testimony. I am really disappointed, but I have to go with what the boss says.

**STATEMENT OF HON. ROBERT M. McDOWELL, COMMISSIONER,
FEDERAL COMMUNICATIONS COMMISSION; ACCOMPANIED BY
HON. MIGNON L. CLYBURN, COMMISSIONER,
FEDERAL COMMUNICATIONS COMMISSION;
HON. JESSICA ROSENWORCEL, COMMISSIONER,
FEDERAL COMMUNICATIONS COMMISSION;
AND HON. AJIT PAI, COMMISSIONER,
FEDERAL COMMUNICATIONS COMMISSION**

Mr. McDOWELL. Thank you, Mr. Chairman. And thank you for having us before you again today. And, Ranking Member Thune and Ranking Member of the Subcommittee Wicker, congratulations on your ranking memberships. And, also, it is a delight to be in front of the new members as well as the veterans of this committee, as well.

I am hopeful that this year the FCC adopts some sensible policies in many areas but especially when it comes to implementing Congress' incentive auction law. My written testimony covers a great deal of other important topics, but I would like to use my

opening statement time to emphasize my serious concerns regarding increased international regulation of the Internet.

Ladies and gentlemen, we are losing the fight for Internet freedom. The Internet is no longer at a crossroads with freedom and prosperity down one avenue and command-and-control government domination down the other. The course of the Internet's fate was dramatically altered for the worse during a treaty negotiation in Dubai last December. As a result, this freedom-enhancing and borderless network of networks, the greatest deregulatory success story of all time, is quickly being absorbed into an intergovernmental structure that uses centralized, top-down chokepoints that employ the power of international law. Unless defenders of Internet freedom and prosperity act quickly, this tragic trajectory will become irreversible.

My testimony on this important matter can be summed up in four main points. First, last year's World Conference on International Telecommunications, known as the WCIT, dramatically ended the era of international consensus to keep intergovernmental hands off of the Internet. Second, defenders of Internet freedom must act quickly to turn the threat of increased intergovernmental control of the Internet into an opportunity to reverse course. Third, we must offer other nations, especially those in the developing world that feel disenfranchised from Internet governance processes, an alternative to international regulation by improving and enhancing the multistakeholder process, especially entities such as the Internet Governance Forum, or IGF. And, finally, Congress can and should continue to play a constructive role by amplifying the call for more Internet freedom.

For many years, the global consensus regarding Internet policy centered on market-opening liberalization and competition in lieu of government regulation. That consensus started to unravel several years ago, however. In 2011, for example, then Russian Prime Minister Vladimir Putin plainly stated that it was his goal and that of his allies to establish, quote, "international control over the Internet," end quote, through the ITU. Last December, in Dubai, they succeeded in establishing an insidious foothold in their patient and incremental quest to control the operations, content, and economics of the Net.

We allowed this to happen even though we were explicitly forewarned. Hindsight allows us to see with great clarity that not only were defenders of Internet freedom too slow to take these efforts seriously but they all too easily fell victim to a disciplined campaign of deception, as well.

For instance, before the WCIT, ITU leadership made three key promises. Number one, no votes would be taken at the WCIT. Number two, a new treaty would be adopted only through unanimous consensus. And, number three, any new treaty would not touch the Internet. All three promises were promptly broken in Dubai through near-perfect Orwellian cynicism, all in the name of making the Internet more democratic.

ITU leadership and pro-regulation member states succeeding in co-opting arguments for preserving a freedom-enhancing, flat, bottom-up, and multistakeholder-driven Internet governance structure

while turning the logic of these arguments on its head to justify their power grab.

Hopefully it is obvious that we must act quickly. Internet freedom's foes around the globe are working hard to exploit a new treaty negotiation that is far larger in significance than the WCIT. In 2014, the ITU will convene in Korea to conduct what is literally a constitutional convention which will define the ITU's mission for years to come.

This scenario poses both a threat and an opportunity for Internet freedom. The threat is obvious: more international regulation of the Internet. We have an opportunity, however, to change the debate by finding arguments that are more compelling to the developing world.

We can start by reminding member states of the incredible benefits brought forth by open markets, liberalization, and competition—benefits such as investment, innovation, universal connectivity, and global prosperity.

Furthermore, we have an opportunity to improve the current multistakeholder structure to include more meaningful participation by developing-world nations. A disproportionate amount of aspiring nations feel left out of the decisionmaking, and such perceived disenfranchisement has fueled the drive to expand the legal authority of the ITU. The best avenues to amplify the voice of the developing world would be through strengthening participation in and funding of the Internet Governance Forum. It is the ultimate flat, democratic, and bottom-up multistakeholder group.

In conclusion, Congress can and should speak loudly to support policies that promote Internet freedom and global prosperity. As we dine on our Thanksgiving dinners in 2014, let us not look back on today and lament how we did not do enough. We have but one chance. Let us be resolute and tell the world that all nations will benefit if we stand strong together for Internet freedom.

Thank you for having me before you today, and I look forward to your questions.

[The prepared statements of Mr. McDowell, Ms. Clyburn, Ms. Rosenworcel, and Mr. Pai follow:]

PREPARED STATEMENT OF HON. ROBERT M. MCDOWELL, COMMISSIONER,
FEDERAL COMMUNICATIONS COMMISSION

Introduction

Thank you, Chairman Rockefeller, Ranking Member Thune and Members of the Committee for inviting me to join you today. It has been an honor working with you over the years, and I am pleased to be back before you. As always, I look forward to answering any questions you may have.

Although the bulk of my testimony focuses on my serious concerns regarding increased international regulation of the Internet, I am hopeful that the Federal Communications Commission adopts some sensible policies in other areas this year.

Today's Policy Priorities

1. The FCC Should Adopt Pragmatic Policies for the Upcoming Incentive Auction

The most important priority for the Commission this year is to implement the congressionally-mandated incentive auction. We should do so by:

- Ensuring that the rulemaking and incentive auction processes are transparent and the final rules are intuitive so that all stakeholders—no matter their technology preference or size—have a meaningful opportunity to understand and participate;

- Avoiding imposing anything that functions as a spectrum cap;
- Refraining, for now, from reserving airwaves to create a “nationwide unlicensed spectrum band” within the new 600 MHz Band;
- Pragmatically balancing the tension between flexible-use spectrum policies and adequate interference protections to account for the technological improvements that will undoubtedly develop while the proceeding is underway and after the rules are implemented; and
- Steering clear of encumbrances that scare away bidders and lead directly to unintended harmful consequences.

II. *The Executive Branch Must Liberate More Spectrum for Exclusive Use Licenses Awarded Through Auctions*

In addition to creating a constructive environment for an incentive auction, the Executive Branch must do more to liberate spectrum occupied by the Federal Government and send it to auction for exclusive use licenses. The Federal Government occupies a majority of the most useful spectrum. Without a doubt, much of it is used for important purposes such as national defense, air traffic control and law enforcement. But does anyone believe that all Federal spectrum is being used efficiently? We don’t have clear answers to these questions because the current structure is opaque and discourages the government from relinquishing spectrum. Ill-defined policies to promote spectrum “sharing” in lieu of auctions for exclusive use licenses are insufficient to meet America’s spectrum needs. This scenario must be rectified or the U.S. wireless industry risks losing the global lead in wireless it has *always* enjoyed.

III. *The FCC Should Modernize America’s Obsolete Media Ownership Rules*

As is required by Section 202(h) of the Communications Act, the FCC must modernize its media ownership rules to reflect the current economic realities of the marketplace and eliminate any and all unnecessary mandates.¹ Not only should the Commission look to deregulate the traditional media sector in the face of competition from new media, it should avoid adding new and unnecessary rules. For example, due to today’s competitive media landscape, the Commission should resist proposals that would restrict broadcasters from entering into some forms of contracts, such as joint sales, shared service and local news service agreements, that could provide efficiencies ultimately benefiting consumers. Unfortunately, new draft rules in this regard are pending before the Commission. If adopted, they would reduce the amount of news and information available to smaller communities.

Additionally, evidence continues to mount that the 1975 newspaper-broadcast cross-ownership ban should be largely eliminated. Although the Commission proposed a relaxation of the ban on newspaper-television ownership for the largest markets and considered eliminating restrictions on newspaper-radio combinations, these proposals are anemic and do not reflect marketplace realities. Over the past decade, broadcast stations and daily newspapers have grappled with falling audience and circulation numbers, diminishing advertising revenues and resulting staff reductions,² as online sources gain in popularity.³ This trend has led many promi-

¹ Section 202(h) of the Telecommunications Act of 1996 states that:

The Commission shall review its rules adopted pursuant to this section and all of its ownership rules quadrennially . . . and shall determine whether any of such rules are necessary in the public interest as the result of competition. The Commission shall repeal or modify any regulation it determines to be no longer in the public interest.

Telecommunications Act of 1996, Pub. L. No. 104–104, 110 Stat. 56, 111–12 §202(h) (1996); Consolidated Appropriations Act, 2004, Pub. L. No. 108–199, §629, 118 Stat. 3, 99–100 (2004) (amending Section 202(h) of the 1996 Act). I concurred in the December 2011 notice of proposed rulemaking, because the Commission appears to be prepared to accept a regulatory *status quo* while I think major changes are necessary and required by Section 202(h).

² Although some sectors of the news industry have experienced a slight resurgence, newspapers continue to face decline with both advertising and circulation revenues continuing on a downward path. In 2011, network and local news viewership increased for the first time in years; however, local TV station advertising revenues still experienced a decline. See PEW RESEARCH CTR’S PROJECT FOR EXCELLENCE IN JOURNALISM, THE STATE OF THE NEWS MEDIA 2012, KEY FINDINGS, <http://stateofthemediamedia.org/2012/overview-4/key-findings/> (last visited March 8, 2013) (“THE STATE OF THE NEWS MEDIA 2012”); THE STATE OF THE NEWS MEDIA 2012, LOCAL TV, <http://stateofthemediamedia.org/2012/overview-4/key-findings/> (explaining that some of this loss is due to a reduction of political and automotive advertising from 2010 and that these revenues will rebound during a busy election cycle).

³ In fact, the White House’s Council of Economic Advisors has found that newspapers are one of America’s fastest-shrinking industries losing approximately 28.4 percent of its workforce between 2007 and 2011. Online publishing job growth, on the other hand, increased by more than 20 percent in the same time period. See, e.g., ECONOMIC REPORT OF THE PRESIDENT TOGETHER

nent daily newspapers to declare bankruptcy or go out of business altogether. Over the past five years, an average of 15 daily papers, or about one percent of the industry, have shuttered their doors each year.⁴ The newspaper-broadcast cross-ownership ban could be exacerbating this situation, according to evidence compiled in the FCC’s record over the years.⁵ Not only is such a rule unnecessary, it appears to be harming the public interest. Keeping the ban on the FCC’s rulebooks is contrary to Congress’s mandate under section 202(h).

The Commission recently indicated that it would accept new evidence for the record to help determine whether cross-ownership has a harmful effect on diversity.⁶ Once that review is complete, along with proper public comment, we should waste no time in completing this proceeding, which is nearly three years overdue.

IV. The FCC Should Repeal Outdated Analog Regulations in The New IP World

The Commission should prioritize its reform efforts to focus on the market’s transition from telecom networks that were built for analog voice services to state-of-the-art data networks that convey an infinite slurry of ones and zeros (the “IP transition”). Comments filed at the FCC indicate that within at least the 22 states where AT&T operates, for instance, 70 percent of the residential customers with access to plain old telephone service over aging copper networks are projected to have chosen a competitive alternative by the end of 2012.⁷ As in so many cases, while our statute and rules stay firmly rooted in the 20th century, the market is whizzing past us. We are overdue for a fresh look at how our laws may be hindering—rather than helping—such market evolutions. At a minimum, we could learn a great deal from sensibly structured test bed programs.

Protecting Internet Freedom

Ladies and gentlemen, we are losing the fight for Internet freedom. Any doubts about this proposition should now be dispelled. The Internet is no longer at a crossroads—with freedom and prosperity down one avenue, and command and control government domination down the other. The course of the Internet’s fate was dramatically altered for the worse during a treaty negotiation in Dubai last December. As a result, this freedom-enhancing and borderless network of networks—the greatest deregulatory success story of all time—is quickly being absorbed into an intergovernmental structure that uses centralized, top-down choke points. Unless defenders of Internet freedom and prosperity act quickly, boldly and imaginatively, this tragic trajectory will become irreversible.

My testimony on this important matter can be summed up in four main points:

- (1) Last year’s World Conference on International Telecommunications (“WCIT”) dramatically ended the era of international consensus to keep intergovernmental hands off of the Internet;
- (2) Defenders of Internet freedom must act *quickly* to turn the threat of increased intergovernmental control of the Internet into an opportunity to reverse

WITH THE ANNUAL REPORT OF THE COUNCIL OF ECONOMIC ADVISORS 188 (February 2012) (citing a LinkedIn study), available at http://www.whitehouse.gov/sites/default/files/docs/erp_2012_complete.pdf; Matt Rosoff, *Newspapers Are The Fastest Shrinking Industry In The U.S.*, BUSINESS INSIDER (Mar. 8, 2012), http://articles.businessinsider.com/2012-03-08/tech/31135175_1_linkedin-job-growth-newspapers#ixzz1us0z9Urf.

⁴THE STATE OF THE NEWS MEDIA 2012, MAJOR TRENDS, <http://stateofthemediamedia.org/2012/overview-4/major-trends/>.

⁵See, e.g., Comments of the Newspaper Association of America, *2010 Quadrennial Review—Review of the Commission’s Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996*, MB Docket No. 09–182 (Mar. 5, 2012); Comments of A.H. Belo Corporation, *2010 Quadrennial Review—Review of the Commission’s Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996*, MB Docket No. 09–182 (Mar. 5, 2012); Joint Comments of Bonneville International Corporation and the Scranton Times, L.P., *2010 Quadrennial Review—Review of the Commission’s Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996*, MB Docket No. 09–182 (Mar. 5, 2012); Comments of Cox Media Group, *2010 Quadrennial Review—Review of the Commission’s Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996*, MB Docket No. 09–182 (Mar. 5, 2012); Comments of Tribune Company, *Debtor-in-Possession, 2010 Quadrennial Review—Review of the Commission’s Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996*, MB Docket No. 09–182 (Mar. 5, 2012).

⁶Statement from FCC Chairman Julius Genachowski on the Status of the Media Ownership Proceeding, News Release (Feb. 26, 2013), http://transition.fcc.gov/Daily_Releases/Daily_Business/2013/db0226/DOC-319131A1.pdf.

⁷See Comments of AT&T, *In the Matter of Connect America Fund*, WC Docket No. 10–90 (Feb. 24, 2012).

course through liberalization of markets that will spark competition, investment and innovation;

- (3) We must offer other nations, especially those in the developing world that feel disenfranchised from Internet governance processes, an alternative to international regulation by improving and enhancing multi-stakeholder entities, such as the Internet Governance Forum (“IGF”); and
- (4) Congress can and should continue to play a constructive role by amplifying the call for more Internet freedom.

I. Last year’s WCIT dramatically ended the era of international consensus to keep intergovernmental hands off of the Internet.

Since becoming commercialized in the mid 1990s, the Internet migrated further away from governmental control. As a result of deregulation, the number of people using the Net world-wide grew from a mere 16 million in 1995 to over 2.4 billion today.⁸ Net access, especially through increasingly powerful and affordable mobile devices, is improving the human condition more quickly and fundamentally than any other technology in history. Nowhere is this phenomenon more apparent than in the developing world where unfettered Internet technologies are expanding economies and raising living standards. These innovations also empower individuals with information that they have never had before, thus threatening authoritarian regimes that rule closed societies. As a result, these regimes, and their client states, have been pushing for more international Internet regulation in lieu of the non-governmental “multi-stakeholder” model for Internet governance. At a minimum, a new international regulatory overlay provides authoritarian governments political “cover” and international legal “legitimacy” for restricting Internet communications in their own countries.

For many years, the global consensus regarding Internet policy centered on market opening liberalization and competition. Internet governance was left to non-governmental private sector groups that not only have a perfect track record of keeping the Internet open and working, but helping it thrive as well. This hands-off approach is what has produced tremendous investment and innovation that has made the Internet ecosystem flourish.

Starting a few years ago, however, countries such as Russia, China, Saudi Arabia and others diligently and patiently worked to change that structure incrementally. Among their many proposals were draft rules that would have the force and effect of international law calling for:

- Changing basic definitions contained in treaty text so the International Telecommunication Union (“ITU”) would have unrestricted jurisdiction over the Internet;⁹
- Allowing foreign phone companies to charge global content and application providers internationally mandated fees (ultimately to be paid by all Internet consumers) with the goal of generating revenue for foreign government treasuries;¹⁰

⁸Internet Growth Statistics, INTERNET WORLD STATS, <http://www.internetworldstats.com/marketing.htm> (last visited March 7, 2013).

⁹See, e.g., *Arab States Common Proposals for the Work of the Conference*, Algeria (People’s Democratic Republic of), Bahrain (Kingdom of), Comoros (Union of the), Djibouti (Republic of), Egypt (Arab Republic of), Iraq (Republic of), Jordan (Hashemite Kingdom of), Kuwait (State of), Lebanon, Libya, Mauritania (Islamic Republic of), Morocco (Kingdom of), Oman (Sultanate of), Qatar (State of), Saudi Arabia (Kingdom of), Somali (Democratic Republic of), Sudan (Republic of the), Tunisia, United Arab Emirates and Yemen (Republic of), Contribution 7, at Art. 2 (Oct. 24, 2012), <http://www.itu.int/md/S12-WCIT12-C-0007/en> (“Arab States Contribution 7”); *African Common Proposals for the Work of the Conference*, African Telecommunication Union Administrations, Contribution 19, at Art. 2 (Nov. 2, 2012), <http://www.itu.int/md/S12-WCIT12-C-0019/en> (“Africa Contribution 19”); *Proposals for the Work of the Conference*, India (Republic of), Contribution 21, at Art. 2 (Nov. 3, 2012), <http://www.itu.int/md/S12-WCIT12-C-0021/en> (“India Contribution 21”); *Proposals for the Work of the Conference*, Russian Federation, Contribution 27, at Art. 2 (Nov. 17, 2012), <http://www.itu.int/md/S12-WCIT12-C-0027/en> (“Russia Contribution 27”); *Proposals for the Work of the Conference*, Algeria, Saudi Arabia, Bahrain, China, United Arab Emirates, Russian Federation, Iraq, Sudan, Contribution 47, at Art. 2 (Dec. 11, 2012), <http://www.itu.int/md/S12-WCIT12-C-0047/en> (“Algeria, Saudi Arabia, Bahrain, China, United Arab Emirates, Russian Federation, Iraq, Sudan Contribution 47”).

¹⁰See, e.g., *Arab States Contribution 7* at Arts. 6.0.5, 6.0.6; *Africa Contribution 19* at Arts. 6.0.1–6.0.6; *Algeria, Saudi Arabia, Bahrain, China, United Arab Emirates, Russian Federation, Iraq, Sudan Contribution 47* at Arts. 6.0.3, 6.0.4; *Revisions of the International Telecommunications Regulations—Proposals for High Level Principles to be Introduced in the ITRs*, ETNO, CWG-WCIT12 Contribution 109, at 2 (June 7, 2012), <http://www.itu.int/md/T09-CWG-WCIT12-C-0109/en>.

- Subjecting cyber security and data privacy to international control, including the creation of an international “registry” of Internet addresses that could track every Internet-connected device in the world;¹¹
- Imposing unprecedented economic regulations of rates, terms and conditions for currently unregulated Internet traffic swapping agreements known as “peering;”¹²
- Establishing ITU dominion over important non-profit, private sector, multi-stakeholder functions, such as administering domain names like the .org and .com Web addresses of the world;¹³
- Subsuming into the ITU the functions of multi-stakeholder Internet engineering groups that set technical standards to allow the Net to work;¹⁴
- Centralizing under international regulation Internet content under the guise of controlling “congestion,” or other false pretexts; and many more.¹⁵

In fact, then-Russian Prime Minister Vladimir Putin plainly stated in 2011 that it was his goal, and that of his allies, to establish “international control over the Internet” through the ITU.¹⁶ Last December in Dubai, they succeeded in establishing an insidious foothold in their patient and incremental quest to “control” the operations, content and economics of the Net. In short, Mr. Putin largely achieved the first stage of his goal. We allowed this to happen even though we were explicitly forewarned.

Hindsight allows us to see with great clarity that not only were defenders of Internet freedom too slow to take these efforts seriously, but they all too easily fell victim to a disciplined campaign of deception. For instance, before the WCIT, ITU leadership made three key promises:

- (1) No votes would be taken at the WCIT;
- (2) A new treaty would be adopted only through “unanimous consensus;” and

¹¹See, e.g., Letter dated 12 September 2011 from the Permanent Representatives of China, the Russian Federation, Tajikistan, and Uzbekistan to the United Nations addressed to the Secretary-General, Item 93 of the provisional agenda—Developments in the field of information and telecommunications in the context of international security, 66th Session of the United Nations General Assembly, Annex (Sep. 14, 2011), http://www.cs.brown.edu/courses/csci1800/sources/2012_UN_Russia_and_China_Code_of_Conduct.pdf (last visited March 8, 2013); *Arab States Contribution 7* at Art. 5A; *Proposals for the Work of the Conference*, Cameroon (Republic of), Contribution 15, at Art. 5A (Oct. 2, 2012), <http://www.itu.int/md/S12-WCIT12-C-0015/en> (“Cameroon Contribution 15”); *Africa Contribution 19* at Art. 5A; *India Contribution 21* at Art. 5A; *Common Proposals for the Work of the Conference*, ITU Member States, Members of the Regional Commonwealth in the Field of Communications (RCC), Contribution 14, at Art. 5A (Oct. 1, 2012), <http://www.itu.int/md/S12-WCIT12-C-0014/en> (“RCC Contribution 14”); *Algeria, Saudi Arabia, Bahrain, China, United Arab Emirates, Russian Federation, Iraq, Sudan Contribution 47* at Art. 3C.

¹²See, e.g., *Arab States Contribution 7* at Art. 6.0.4; *India Contribution 21* at Art. 6.0.4; Internet Society Background Paper, *International Telecommunications Regulations*, available at <http://www.internetsociety.org/sites/default/files/Internet%20Society%20Background%20Paper-%20International%20Telecommunication%20Regulations%281%29.pdf> (last visited March 8, 2013).

¹³See, e.g., *Arab States Contribution 7* at Art. 3.5; *Russia Contribution 27* at Art. 3A.2; *Algeria, Saudi Arabia, Bahrain, China, United Arab Emirates, Russian Federation, Iraq, Sudan Contribution 47* at Art. 3B.

¹⁴See, e.g., *Africa Contribution 19* at Art. 3.4A; *Russia Contribution 27* at Art. 3A; *Algeria, Saudi Arabia, Bahrain, China, United Arab Emirates, Russian Federation, Iraq, Sudan Contribution 47* at Arts. 1.6, 3.1, 4.2, 4.3.

¹⁵See, e.g., *Arab States Contribution 7* at Art. 5A; *Africa Contribution 19* at Art. 5B. Some member states also called for requiring network operators to disclose to the government identification information about every communication carried over their networks or to give the governments control of the routing of those communications. *Arab States Contribution 7* at Arts. 3.3, 3.6; *Africa Contribution 19* at Arts. 3.3, 3.4B; *RCC Contribution 14* at Art. 3.3; *Algeria, Saudi Arabia, Bahrain, China, United Arab Emirates, Russian Federation, Iraq, Sudan Contribution 47* at Arts. 3.3, 3B.3; *Cameroon Contribution 15* at Art. 3.6.

¹⁶*Prime Minister Vladimir Putin meets with Secretary General of the International Telecommunication Union Hamadoun Touré*, GOV'T OF THE RUSSIAN FED'N, <http://government.ru/eng/docs/15601/print/> (last visited March 8, 2013) (“The International Telecommunication Union is one of the oldest international organisations; it’s twice as old as the United Nations. Russia was one of its co-founders and intends to be an active member. We are thankful to you for the ideas that you have proposed for discussion. One of them is establishing international control over the Internet using the monitoring and supervisory capabilities of the International Telecommunication Union (ITU). If we are going to talk about the democratisation of international relations, I think a critical sphere is information exchange and global control over such exchange. This is certainly a priority on the international agenda.”).

(3) Any new treaty would not touch the Internet.¹⁷

All three promises were promptly broken¹⁸ in Dubai in the name of making the Internet more “democratic” through near-perfect Orwellian cynicism. ITU leadership and pro-regulation member states succeeded in co-opting arguments for preserving a freedom-enhancing, flat and multi-stakeholder driven Internet governance structure while turning the logic of these arguments on its head to justify their egregious power grab.¹⁹

At the end of the negotiation, 89 countries had signed on to the new treaty language, 55 did not sign and 49 did not attend the WCIT. The “vote count” did not end last December, however. Member states have until 2015 to sign the treaty and many more are expected to do so. Among those at risk of signing are otherwise close allies, such as many European nations. If we do not act quickly, the number of signatories to the treaty will increase rapidly.

In short, the U.S. experienced a rude awakening regarding the stark reality of the situation: when push comes to shove, even countries that purport to cherish Internet freedom are willing to succumb to the clever and deceptive tactics of regulatory incrementalists. Our experience in Dubai is a chilling foreshadow of how international Internet regulation could grow insidiously and at an accelerating pace.

Specifically, the explicit terms of the new treaty language give the ITU policing powers over “SPAM,” and attempt to legitimize under international law foreign government inspections of the content of Internet communications to assess whether they should be censored by governments under flagrantly transparent pretexts such as “network congestion.”²⁰ The bottom line, however, is that the ITU has now claimed jurisdiction over the Internet’s operations and content.

More fundamentally, pro-regulation forces succeeded in upending decades of consensus that maintained that Internet service providers, as well as Internet content and application providers, should be insulated from intergovernmental control. They accomplished this feat with simple changes in the definitions of crucial treaty terms.²¹ Their audacity doesn’t stop there, however. Many countries, in addition to

¹⁷ WCIT-12: Clarification Needed During Open Letter Session, ITUBLOG (Nov. 15, 2012), <http://itu4u.wordpress.com/2012/11/15/wcit-12-clarification-needed-during-open-letter-session/> (last visited March 8, 2013) (“Internet Control is simply not in the ITU mandate and ITU will continue to fully support the multistakeholder approach which it initiated some ten years ago for the World Summit of the Information Society.”); Hamadoun I. Touré, *U.N. We Seek to Bring Internet to All*, WIRED.COM (Nov. 7, 2012), <http://www.wired.com/opinion/2012/11/head-of-itu-un-should-internet-regulation-effort/> (last visited March 8, 2013) (stating “[n]o proposal will be accepted if it is not agreed upon by all participants through consensus.”); Hamadoun I. Touré, *Global Media Briefing on WCIT*, ITU (June 22, 2012), <http://www.itu.int/en/osg/speeches/Pages/2012-06-22.aspx> (last visited March 8, 2013) (“We all know that, in the true tradition of the ITU, we will not vote on any issues— just like in January, at the World Radiocommunication Conference, where in four weeks we did not vote once, but came to consensus on every issue.”); Speech by ITU Secretary-General Touré, *The Challenges of Extending the Benefits of Mobile*, ITU (May 1, 2012), <http://www.itu.int/en/osg/speeches/Pages/2012-05-01.aspx> (last visited March 8, 2013) (“You will, I am sure, have seen and read various media articles talking about the UN or the ITU trying to take over the Internet. Let me say quite plainly and clearly: This is simply ridiculous.”); David McAuley, *WCIT ‘Internet Governance’ Hype Distracts Attention From Serious Issues*, ITU Head Says, BLOOMBERG, Sept. 11, 2012, <http://www.bna.com/itus-toure-wcit-b17179869586/> (last visited March 8, 2013) (quoting ITU Secretary-General Touré that WCIT “has nothing to do with [Internet] Governance.”).

¹⁸ Remarks by Assistant Secretary Strickling at the PLI/FCBA Telecommunications Policy & Regulation Institute (Dec. 14, 2012), http://www.ntia.doc.gov/Remarks_by_Assistant_Secretary_Strickling_at_PLI/FCBA (last visited March 8, 2013) (“The International Telecommunication Union had made two important promises in advance of the conference. First, that it would operate by consensus and second, that Internet issues would not be appropriate for inclusion in the ITRs. As it turned out, the ITU could not deliver on either of these promises. When around 40 percent of the participating countries do not sign the final documents of the conference, it is obvious that the ITU did not achieve the consensus it had promised.”).

¹⁹ Notably, at the end of the WCIT, a “resolution to foster the greater growth of the Internet” was adopted “resolving to instruct the Secretary-General to continue to take necessary steps for ITU to play an active and constructive role” in Internet governance. This will serve to broaden the scope of the ITU’s rules to include the Internet, undermining the highly successful, multi-stakeholder model of Internet governance, therefore stunting its growth, not fostering it.

²⁰ INTERNATIONAL TELECOMMUNICATION UNION, FINAL ACTS: WORLD CONFERENCE ON INTERNATIONAL TELECOMMUNICATIONS, at Art.5B (Dubai 2012) (“FINAL ACTS”). The new ITRs provide signing nations with a greater ability to regulate the blocking of “SPAM,” opening the door to the regulation of content on the Internet, including possible blockage of political dissent or other forms of protected speech under the First Amendment of the U.S. Constitution. *See id.*

²¹ FINAL ACTS at Art.1 abis). For example, an early disagreement at the WCIT over the reach of the international treaty’s application resulted in a vague, undefined new term that could have far-reaching consequences. Prior to the WCIT, the ITRs applied only to “Recognized Operating Agencies” (ROAs), or telecommunications operators in each country. During the WCIT, some

the ITU itself,²² brazenly argued that the *old* treaty text from 1988 gave the ITU broad jurisdiction over the Internet.²³

If these aggressive regulatory expansionists are willing to conjure ITU authority where clearly none existed before, their imaginations will see no limits to the ITU's authority over the Internet's affairs under the new treaty language. Their appetite for multilateral regulatory expansionism is insatiable as they envision the omniscience of intergovernmental regulators able to replace the billions of daily decisions that allow the Internet to blossom and transform the human condition.

At the same time, worldwide consumer demand is driving technological convergence. As a result, companies such as Verizon, Google, AT&T, Amazon, Microsoft, Netflix, and many more lesser-known enterprises in the U.S. and in other countries, are building across borders thousands of miles of fiber optics to connect sophisticated servers and routers that bring voice, video and data services more quickly to consumers tucked into every corner of the globe. From an engineering perspective, the technical architecture and service offerings of these companies look the same. Despite this wonderful convergence, an international movement is growing to foist 19th Century regulations designed for railroads, telegraphs and analog voice phone monopolies onto new market players that are fundamentally different from the monoliths of yore.

To be blunt, these dynamic new wonders of the early 21st Century are perilously close to being smothered by innovation-crushing old rules designed for far different technologies which operated in a much less competitive market long ago. The practical effect of expanded rules would be to politicize engineering and business decisions inside sclerotic intergovernmental bureaucracies. As a technical matter, a centralized, top-down "management" model for the Internet defies its flat and democratic architecture and would cause a global engineering nightmare. For example, how would a partitioned Internet work? How would entrepreneurs be able to build and operate new cross-border technologies such as cloud computing?

More importantly, the effect of a stunted Internet ecosystem impaired by a new international regulatory overlay could be devastating to efforts to improve the human condition across the globe. If these trends continue, Internet growth would be most severely impaired in the developing world where Web-connected mobile devices and their applications enable worried parents to locate medicine for their sick children, villagers to find drinkable water and farmers to learn prevailing market prices for their crops.²⁴ Even in the U.S., brilliant and daring technologists who are working to transform the world could be forced to seek bureaucratic permission to

countries sought to change the term to "Operating Agencies," expanding the ITRs applicability. This debate was resolved by the adoption of "Authorized Operating Agencies" (AOA), undefined in the ITU Constitution. At present there is no definitive interpretation of which entities this provision applies to, likely precipitating disputes between member states regarding which entities specifically qualify as AOAs. Most assuredly, however, given current trends, key member states will push aggressively for definitions that are as expansive as possible.

²²The ITU can serve as a useful and constructive forum for the resolution of many important international communications policy matters, such as harmonization of spectrum and the allocation of satellite orbital slots. In contexts such as these, reaching international consensus through the ITU can produce positive outcomes. The danger, however, lies with unwarranted ITU "mission creep" into new spheres, such as the complex ecosystems of the Internet. Replicating the ITU's antiquated telecommunications regulations for modern digital communications technologies and services that do not operate like, or in any way resemble, traditional telecom services would be highly counterproductive. Although maintaining strong U.S. involvement in the pre-WCIT-12 ITU mission is vital, on a going forward basis, we should reassess America's support for new ITU actions we find harmful to freedom, prosperity, our national interest, and the well-being of all nations, but especially the developing world.

²³Speech by ITU Secretary-General Touré, *WCIT-12—Myths and Reality* (Sept. 24, 2012), <http://www.itu.int/en/osg/speeches/Pages/2012-09-24.aspx> (stating that "ITU's day-to-day activities [] are already fundamental to promoting Internet growth."); *WCIT-12 Myth Busting Presentation*, ITU, Slides 24, 25, <http://www.itu.int/en/wcit-12/Pages/WCIT-background-briefs.aspx> (last visited March 8, 2013) (stating that "[m]any consider that [the ITU definition of telecommunications] includes communications via the Internet, which runs on telecom infrastructure" and that it is an incorrect "myth" that the "ITU's scope does not include the Internet" and that "WCIT is about the ITU or the UN extending their mandate so as to control the Internet.").

²⁴See, e.g., Ken Banks, *In African Agriculture, Information is Power*, Nat'l Geographic (Sept. 5, 2011), <http://newswatch.nationalgeographic.com/2011/09/05/in-african-agriculture-information-is-power/>.

innovate and invest. At a minimum, this scenario would create tremendous uncertainty while driving up costs ultimately borne by all Net consumers.²⁵

In sum, the dramatic encroachments on Internet freedom secured in Dubai will serve as a stepping stone to more intergovernmental regulation of the Internet in the very near future. The end result will be devastating to global prosperity and freedom.

*II. Defenders of Internet freedom must act **quickly** to turn the threat of increased intergovernmental control of the Internet into an opportunity to reverse course through liberalization of markets that will spark competition, investment and innovation.*

We must act quickly. While we debate what to do next, Internet freedom's foes around the globe are working hard to exploit a treaty negotiation that is far larger in significance than the WCIT. In 2014, the ITU will convene in Busan, Korea and conduct what is literally a constitutional convention, called a "plenipotentiary" meeting, which will define the ITU's mission for years to come. Member states will rewrite the ITU constitution and elect a new Secretary General. This scenario poses both a threat and an opportunity for Internet freedom. The threat is obvious: more international Internet regulation. We have an opportunity, however, to change the debate by finding arguments that are more compelling to the developing world. We can start by reminding member states of the incredible benefits brought forth by policies that promote open markets through liberalization and competition. These are the paths that have proven to lead to investment, innovation, universal connectivity and global prosperity.

We can start by working to find new allies at the upcoming World Telecommunications Policy/ICT Forum ("WTPF"), which convenes in Geneva this May. This conference will focus squarely on Internet governance and will shape the 2014 Plenipotentiary. Accordingly, the highest levels of the U.S. Government must make this cause a top priority and recruit allies in civil society, the private sector and diplomatic circles around the world.²⁶

Internet freedom's allies simply cannot dither again. If we do, we will fail, and global freedom and prosperity will suffer.

III. We must offer other nations, especially those in the developing world that feel disenfranchised from Internet governance processes, an alternative to international regulation by improving and enhancing multi-stakeholder entities, such as the Internet Governance Forum.

Merely saying "no" to any changes to the multi-stakeholder model has proven to be a losing proposition, as the outcome of the WCIT clearly illustrates. The Plenipotentiary meeting in 2014, and the WTPF this coming May in Geneva, provide us with opportunities to amend and enhance the current multi-stakeholder structure to include more meaningful participation by developing world nations. Due to limited time and resources, many smaller countries simply cannot attend the myriad Internet governance meetings that are held around the globe each year. As a result, a disproportionate amount of aspiring nations feel left out of the decision making. Such perceived disenfranchisement has fueled the drive to expand the legal authority of the ITU. We should work to change this disparity as soon as possible.

²⁵ A recent news article summed up the chaotic effects of a partitioned Internet. Note the Russian official's call for the U.S. to agree to international regulation of the Net to avoid fragmentation—a clever and cynical maneuver to turn arguments against Net regulation on their head.

The U.N. has no power to force the United States to adopt any Internet regulation, and the U.S. refused to sign the December treaty, along with 55 other countries. But if a large number of countries agree on regulations, the Internet could become fragmented, with very different rules applying in different regions of the world. "That becomes an engineering nightmare," McDowell said. Russia has pushed hardest for international Internet regulation. "In the future we could come to a fragmented Internet," warned Andrey Mukhanov, one of Russia's representatives to the U.N. conference, as the U.S. and many European countries declined to sign the treaty in December. "[Fragmenting] would be negative for all, and I hope our American and European colleagues come to a constructive position." But by a "constructive position," Mukhanov means one with international web regulation. . . . Technology groups and companies like Google say that the regulations, while they often seem nice on the surface, give government the power to censor content.

Maxim Lott, *Internet Still Under Attack by UN, FCC Commissioner Says*, FoxNews.com (Feb. 13, 2013).

²⁶ The effort should start with the President immediately making appointments to fill crucial vacancies in our diplomatic ranks. The recent departures of my distinguished friend, Ambassador Phil Verveer, his legendary deputy Dick Beard, as well as WCIT Ambassador Terry Kramer, have left a hole in the United States' ability to advocate for a constructive—rather than destructive—Plenipot.

The best avenue to amplify the voice of the developing world would be through strengthening participation in the IGF. The IGF was chartered in 2005 in Tunis at the U.N.'s World Summit on the Information Society. It first met in Athens in 2006. The IGF includes among its participants civil society, the private sector, non-profits, governments and the ITU itself. Its structure is classically multi-stakeholder in nature: it operates by consensus and no government or other entity controls it. The IGF is a forum for decision making, but is not the decision maker. In other words, it is a "wiki" environment that operates in a flat, democratic and bottom-up manner where the smallest of players can become empowered, much like the Internet itself.

The international community, including the private sector, civil society, non-profits and governments alike, should strive to find ways to increase meaningful participation in the IGF by all interested stakeholders. As with many organizations, achieving this goal may be a matter of raising adequate funds. We should not allow this challenge to act as an obstacle, however. If we do not give developing nations a meaningful good faith role in shaping the evolution of the Internet through a non-governmental multi-stakeholder entity, they will continue to vote in great numbers to radically expand the ITU's reach. Ironically, it is the developing world that stands to gain the most from an unfettered Internet, and they will lose the most under centralized, top-down control of the Internet's operations, content and economics.

IV. Congress can and should continue to play a constructive role by amplifying the call for more Internet freedom.

As we make communications policy here in the United States, we tend to forget that nearly every government and communications provider on the globe studies what we do. Without a doubt, this hearing is streaming live in some countries and is being blocked by government censors in others. Every detail of our actions is scrutinized while influencing nations everywhere.

Furthermore, when Congress speaks, especially when it speaks with *one* loud and clear voice as it did last year with the unanimous, bipartisan and bicameral resolutions concerning Internet freedom, policymakers across the globe pause to think. Repeatedly, I have been told by international officials that, despite the negative outcome of the WCIT, last year's resolutions had a positive effect.²⁷

This year, Congress can help by speaking loudly and clearly to support policies that promote Internet freedom and global prosperity as we head toward the ITU's plenipotentiary meeting in 2014.

Conclusion

I ask each of you today to take bold and decisive action *now*. As we dine on our Thanksgiving dinners in 2014, let us not look back at today and lament how we did not do enough. We have but one chance. Let us be resolute and tell the world that all nations will benefit if we stand strong together for Internet freedom.

Thank you for having me before you today. I look forward to your questions.

PREPARED STATEMENT OF HON. MIGNON L. CLYBURN, COMMISSIONER,
FEDERAL COMMUNICATIONS COMMISSION

Chairman Rockefeller, Senator Thune, members of the Committee, thank you for the opportunity to appear before you today. It is good to be back, and I look forward to continuing to work with you and the new members in the years to come, particularly Senator Scott from the great state of South Carolina.

When I sat before you during our last hearing, I was under consideration for a second term on the FCC. Today I wish to thank you for your votes of confidence in January.

I plan to maintain a strong focus on consumer protection, the need for robust competition, and ways in which we can ensure that technology can advance key, na-

²⁷Many other proposals that would threaten the Internet were defeated at the WCIT, such as "sender party pays," which would have required Web content providers to pay Internet service providers (ISPs) in other countries for the traffic sent over those networks. See also David Gross, *Walking the Talk: The Role of U.S. Leadership in the Wake of WCIT*, BLOOMBERG, Jan. 17, 2013, <http://www.wileyrein.com/resources/documents/Gross-BNA-1.17.13.pdf> (last visited March 8, 2013) (explaining that Congress's clear message was heard at WCIT, "This action was important not only because of the substance of Congress's statements, but also because the world understood just how extraordinary it is for our Congress to act with unanimity, especially in an era when Congress has immense difficulty reaching consensus on almost anything. At the end of WCIT, I heard from many foreign officials that they knew that the United States would not sign the revised treaty with its Internet-related provisions because Congress had sent a clear and unequivocal message that such an agreement was unacceptable to the American people.").

tional objectives. In doing so, I wish to stress what I see as the primary role of those sitting at this table, and for the providers we regulate.

Last week, I met with a Colorado broadcaster who summed it up perfectly. We are trustees, both communications providers and regulators alike, each serving this Nation for a specific purpose. To the point, American consumers are in need of and will always benefit from world-class technology and innovation that often comes from the private sector, but both must have assurances that the rules which govern this space are timely, clear, and fair. No matter the product or service, transparent rules must always be in place to protect all parties, ensuring that we all are able to enjoy the advantages and opportunities these communications technologies have to offer.

I believe we have worked hard to fulfill our side of this pact, with the Commission and industry successfully communicating on how best to advance universal service for voice and broadband, disabilities access to communications technologies and services, and better delivery systems in the area of public safety.

Take for example our current review of the FCC's media ownership rules. My office has held dozens of meetings with both broadcasters and our friends in the public interest community, who are both working to seek middle ground on a number of core issues important to each side. We want to get the rules right, and I am pleased that we are considering every possible option before making a final judgment. I have long warned that it would be imprudent and negligent to change any rule absent timely and comprehensive data regarding the impact on female and minority broadcasters and diverse broadcast programming, and I am pleased that at least one organization has begun a study to that effect. As a steward of the public interest, I feel duty-bound to consider all the facts as we fulfill our statutory obligations.

The same can be said with regard to our roadmap for incentive auctions, and our laser focus on a process that can empower the mobile wireless and broadcast TV industries and provide sufficient funds to meet the public safety goals. Chairman Genachowski has set forth a process that adheres to the statute you and your colleagues in the House sent us last year, and we intend to fully comply with the language and goals of the legislation. I will never lose sight of what I mentioned moments ago, that we are co-trustees, and as such, we will continue to work diligently with the broadcast industry and proceed in a way that carefully considers the concerns of all stakeholders.

We also will not stop focusing on improving access to broadband networks even in the most hard-to-serve areas of the nation, and the reforms of the Universal Service Fund programs have been a significant priority for the agency to advance that objective. While physical access is important, work is ongoing to promote the adoption and use of broadband. Congress directed us to do so in Section 706 of the Communications Act, along with our state commissions, and as my last act as Chair of our Federal-State Joint Conference on Advanced Services, we hosted a summit in February to focus on the various adoption programs underway through the Recovery Act funds, as well as other public and private sector efforts.

We highlighted a number of successful projects and the latest academic thinking. What we have learned so far is that adoption has slowed in recent years, and those consumers who have yet to adopt have multiple reasons for not doing so. Cost remains a significant barrier, and convincing those who are non-digital natives to get online typically involves a trusted local partner, digital literacy training, and subsidized services and equipment if affordability is an issue. I am pleased that the Commission's Lifeline broadband pilot projects will lead to additional data for the Commission to study in order to further advance adoption, especially for low-income, senior and minority consumers. Moreover, I am encouraged by private sector efforts committed to increasing broadband adoption in disadvantaged communities. It is a matter of fairness, as one senior executive so aptly stated. These are the communities that can be helped the most by high-speed Internet access, and the public and private sectors should continue to work together in order to better address this imperative. As a nation, we can ill-afford to leave anyone behind.

I am, as always, eager to share your objectives with our hardworking staff at the FCC, and pledge to you that I will remain diligent and vigilant as a trustee of the American people. Thank you again for this opportunity, and I look forward to answering any questions you may have.

PREPARED STATEMENT OF HON. JESSICA ROSENWORCEL, COMMISSIONER,
FEDERAL COMMUNICATIONS COMMISSION

Good afternoon, Chairman Rockefeller, Ranking Member Thune, and the distinguished members of the Committee.

I am honored to appear before you today as a Commissioner at the Federal Communications Commission. Prior to serving in this position, I had the privilege of serving this Committee as Senior Communications Counsel. But of course, joining you here today behind the witness table is a different experience altogether. I am grateful for the opportunity.

Let me start by noting that there is no sector of the economy more dynamic than communications. By some measures, communications technologies now account for one-sixth of the economy in the United States. We have more ways to connect, create, and access content than at any point in history. These technologies are changing the way we educate, entertain, and govern ourselves—in communities all across the country.

But our communications triumphs to date are no guarantee of future success. Laurels, are not, in fact, good resting places. So I think it is important to start with what we know. We know that we are witnessing the breaking down of old barriers between local and long distance; voice, video, and data; and wired and wireless. We know that the scope of communications convergence is immense—and the digitization of all aspects of our economic and civic life is well underway.

There is no question that this transition is exciting. But it also brings challenges. So in these transitional times, what should guide the Commission as we carry out the laws developed by Congress? I believe that our policies must always do two simple things.

First, they must promote confidence for private investment in digital age infrastructure.

Second, they must promote confidence for consumers to realize the full potential and opportunity that our emerging digital world provides.

This is the prism through which I view all of the Commission's actions. It is the prism through which I believe the agency should approach the challenging issues ahead. It is the way I believe we can best foster growth and opportunity through communications—in urban areas, rural areas, and everything in between.

Now I want to move from the big picture to the particular, from method to mechanics—and discuss the major communications issues that lie ahead.

Implementing Successful Wireless Incentive Auctions

The Commission embarked this past September on the complex but critical task of conducting wireless incentive auctions. As you undoubtedly know, incentive auctions are a new tool that Congress provided us with in the Middle Class Tax Relief and Job Creation Act to address the near-term demands on our Nation's airwaves.

The demands on our airwaves are very real. Consider the fact that we already have more wireless phones in this country than we have people. Half of those phones are smartphones. Today one in five households owns a tablet computer—and that number is growing fast. Smartphones generate 35 times the traffic of traditional wireless phones. Tablet computers generate 121 times the traffic of traditional wireless phones. And over the next five years, mobile data traffic is expected to grow 13 times what it is today.

So we must get these auctions right. Because if we get them right, we will facilitate the *voluntary* return of spectrum from commercial licensees and promote its efficient reuse. If we get them right, we will ease congestion on our airwaves and expedite development of new wireless services and applications. That will mean confidence for carriers to invest in wireless networks and confidence for consumers to take advantage of the growing array of new and innovative services that wireless broadband can put in our hands.

But before we get there, it is useful to consider what has come before. For nearly two decades, the Commission's path-breaking spectrum auctions have led the world. The agency has held more than 80 auctions; it has issued more than 36,000 licenses; and it has raised more than \$50 billion for the United States Treasury. The Commission's simultaneous multiple round ascending auctions have been a model for governments and commercial wireless providers across the globe.

We are now again poised to be the world's pioneer with incentive auctions. To ensure our success I believe that four basic principles should guide us: simplicity, fairness, balance, and public safety.

Simplicity is key. Incentive auctions are undeniably complicated. But at every structural juncture, a bias toward simplicity for participants is crucial. A broad-

caster should be able to quickly and transparently evaluate the opportunities auctions provide.

Fairness is essential. This is especially true with regard to the treatment of broadcasters that do not participate in the auction. Fairness demands that we consider how to accomplish repacking by minimizing unnecessary disruption and maximizing the ability of the public to continue to receive free, over-the-air television. At the same time, we ask that broadcasters make a fair assessment of the opportunities that this auction provides. By offering incentives to share channels and incentives to relocate from the UHF to the VHF band, this auction can mean new resources for broadcasters to develop new programming and deploy new services.

Balance is necessary. None of the three legs of the incentive auction—the reverse auction, the repacking, or the forward auction—can stand on its own. For instance, the interference rules we consider will not only impact broadcast services, but also how much spectrum will be available for auction, which in turn will impact the revenues raised. Choices in one area affect others. This also requires attention to the balance between licensed and unlicensed use of spectrum across all frequency bands. The former provides reliability and interference protection; the latter provides low barriers to entry and promotes the efficient use of limited resources. Good spectrum policy requires both.

Public safety is fundamental. The Commission must remember that Congress designated auction revenues to support the first nationwide, interoperable wireless broadband public safety network. We must never forget that the success of these auctions requires delivering on our promise to America's first responders.

Finally, it is important to put our incentive auctions—and all of our spectrum auctions—on a clear timeline. A date certain will focus all stakeholders, lead to capital formation, provide certainty for broadcasters, and help ensure success.

Developing a New Approach to Federal Spectrum

Even with incentive auctions on course, demand for our airwaves will continue to grow at a breathtaking pace. To keep up, more must be done. I believe this requires rethinking our traditional approach to Federal spectrum.

Federal authorities have substantial spectrum assignments. After all, critical missions throughout the government are dependent on access to our airwaves. Federal authorities use their spectrum assignments to protect us from attack, with tools like precision guided munitions and early missile warning systems. They use them to manage our air traffic, enhance our crop productivity, and monitor our water supplies. They use them to protect against forest fires, and to predict weather patterns—like Hurricane Sandy—before they occur. These are essential to our economic security and our national well-being.

Nonetheless, we are on a hunt for new opportunities for commercial spectrum, in order to reach the 500 megahertz benchmark for new wireless broadband use in the Executive Order from President Obama just under three years ago. With traditional auctions and incentive auctions in the Middle Class Tax Relief and Job Creation Act we are already on our way. But meeting this mark will require more. It will require a fresh look at Federal uses.

The traditional approach to repurposing Federal spectrum for commercial use entailed three distinct steps: clear Federal users out, relocate them, and auction the spectrum for new commercial use. But while this three-part command worked well in the past, it is unlikely to work as well going forward. Just as in the commercial sector, more government functions than ever before are traveling over our airwaves and it is growing harder to find spectrum for Federal relocation.

So it is time for a new approach. It is time to develop a series of incentives to serve as the catalyst for freeing more Federal spectrum for commercial use. Government agencies are mission focused. Once a communications network has been built, once a land mobile radio system is operational, agencies do not want to change because it disrupts their mission. This is completely rational. But what if we were to reward Federal authorities for efficient use of their spectrum resource? What if they were able to reclaim a portion of the revenue from the subsequent re-auction of their airwaves? Or enjoy a benefit in their budget every time they increased their efficient use of the airwaves? Would they make new choices about their missions and the resources they need to accomplish them? I think so. In short, instead of sticks, we should try carrots. We must work with our government partners so they can realize the value of their spectrum and the value of using it efficiently—instead of only seeing loss from its commercial reallocation.

Fostering the Transition to IP Networks

When it comes to communications network infrastructure, we are living in a transitional time. We have the public switched telephone network and an emerging

Internet Protocol (IP) ecosystem. Today they coexist. The new and the next interconnect. They are jointly responsible for carrying our communications.

The numbers clearly demonstrate this transition. In 2001, there were 192 million circuit-switched telephone lines. A decade later, this number declined by more than 40 percent to 107 million. In contrast, interconnected Voice over Internet Protocol (VoIP) subscriptions have risen by more than 50 percent since 2008, and now number 37 million. Add to this that over one-third of households have cut the cord entirely, with their wireless phone their only phone.

What we have is a trend. The ways consumers choose to connect are growing more diverse, and so are the networks over which our conversations and content travel.

The Commission is guiding the course for this transition right now. It has petitions before it that pose basic questions about fostering the migration to IP network infrastructure. It also has a task force charged with comprehensively considering issues posed by this transition.

These are good developments. Because we must do more than just apply the laws of the present to the networks of the future. We must make choices that inspire confidence and private investment in our Nation's infrastructure.

To this end, companies need to understand what policies guide the Commission's actions, both from a regulatory and enforcement perspective. We will undermine investment if we are not clear. So as we develop a framework for the IP transition, I think we should be clear and not get lost in legal minutiae. We need to ask big questions about the basic values in our communications laws. For my part, I see four: public safety, universal service, competition, and consumer protection.

First, public safety is paramount. In the very first sentence of the Communications Act, Congress instructed the Commission to make available, "to all the people of the United States. . . a rapid, efficient, Nation-wide, and world-wide radio and communication service" in order to promote the "safety of life and property." In light of this directive, any technological or network transition must, first and foremost, be judged by its ultimate impact on public safety and network resiliency.

But as the numbers I just shared with you demonstrate, we are migrating to wireless and IP networks. That means that we are choosing to go without the independent electrical source that traditionally powered wireline copper plant. Our new wireless and IP technologies are dependent on commercial power. When that goes out, so do connections. But as consumers switch to new networks, I do not believe we have to sacrifice safety in the process.

So as a result, I think it is time for an honest conversation about network reliability in the wireless and digital age. It is time to ask hard questions about back-up power, and how to make sure our networks are more dependable when we need them most. We also need to make sure that consumers understand the benefits—and limitations—of new technologies when they reach out for emergency assistance. Hurricane Sandy demonstrated this need with painful clarity.

Second, universal service is still essential. No matter who you are or where you live, prosperity in the 21st century will require access to broadband services. The Commission's ongoing efforts to promote broadband deployment and adoption are built on this simple truth. But as we transition to new technologies, we must ensure that no American is left behind.

Third, competitive markets are critically important. Competition inspires private sector investment. The competitive markets that have spurred so much technological innovation in the past will be the most effective means of making sure that consumers reap the benefits of this network transition in the future. This requires special attention to a key element of the Telecommunications Act that has made our patchwork of competitive networks work seamlessly: interconnection.

Fourth, consumer protection is always in the public interest. In a transitional world, consumers rely on both old and new technologies. We need to help consumers understand what different technologies offer, help them make informed choices, and inspire confidence in the range of new services this transition is making available.

As we assess changes in the public switched telephone network, I think these principles are good guideposts. I think we can work within this framework and promote confidence in network investment across the country.

Updating Universal Service and E-Rate for the Broadband Age

Universal service is a cherished notion in communications. After all, it was back in 1934 when Congress first directed the Commission to make "communication by wire and radio" available "so far as possible, to all the people of the United States." And it was Congress who expanded on this notion by adding new principles to guide universal service policy to the law in 1996. As a result, today, the duty to preserve and advance universal service is the law of the land.

Technology changes, but these basic legal principles have not. That is why, a little over a year ago, my colleagues at the Commission updated the high-cost universal service and intercarrier compensation system. This was a historic effort. They refocused the fund from last century's technology on to the broadband and wireless communications challenges of this century. They put it on a budget. And they increased accountability throughout.

But I do worry that our reforms to the high-cost universal service system are extremely complex. I fear that this complexity can deny carriers dependent on it the certainty they need to confidently invest in network infrastructure. So when opportunities arise to simplify our rules in a manner that is fiscally sound, good for rural consumers, and bound to inspire investment—we should seize them. Our policies must strive to provide carriers with confidence to invest in broadband and wireless infrastructure and provide rural consumers with confidence that they will have access to first-rate communications services.

To this end, I am pleased that the Commission recently made adjustments to the universal service reforms it put in place for rate-of-return carriers serving rural areas. Specifically, it combined separate capital and operating expense benchmarks into a single new benchmark. As technical as this sounds, it simplifies our regression analysis and provides carriers with more flexibility and more confidence to invest in their networks. This is a good thing.

However, going forward I would like to see similar adjustments made for price cap carriers serving rural communities. Specifically, I would like to see the Commission distribute incremental support from its first phase of the Connect America Fund as soon as possible. With more than 14.5 million rural consumers without broadband today, these funds could be put to use right now to expand service and create jobs in rural America. Delaying their distribution until a long-term cost model is developed under the Connect America Fund would only further delay rural broadband deployment.

Going forward, we also need to update the E-Rate program to meet 21st century education needs. In my current role, I have met with school superintendents in communities as diverse as Miami, Florida and Kotzebue, Alaska. They are uniform in one thing—their praise for the power of E-Rate to bring high-speed communications to their schools and libraries. They believe it is essential for digital age learning. But year-in and year-out, the demand for this program is double the amount the Commission makes available. Moreover, our surveys suggest that 80 percent of schools and libraries believe their broadband connections do not meet the current needs. So I believe it is time for E-Rate 2.0. I think it is time to reboot, reinvest, and reinvigorate this program and put it on a course to provide higher speeds and greater opportunities in the days ahead.

Recommitting to Consumers

Communications and media services are becoming a more substantial part of all of our household budgets. Consumer expenses on communications bills average more than 4 percent of disposable income. For many households, that can mean thousands of dollars a year. To be clear, we are getting a lot more value from these services. We have more channels than ever before. We have faster broadband. We have mobility, and with it the expectation that wherever we go, the ability to connect will follow.

But consumer wallets are not without limit. Pocketbooks have their bottom. In a world where consumer choices have become both vast and complex, information is power. So it is vitally important to get consumers the information they need to make choices with confidence in a marketplace that can be bewildering to navigate.

Consider, for example, the dizzying array of wireless plans available: shared and individual plans, limited and unlimited voice, data, and text. To stay within a plan can require keeping track of voice, data, and text usage across multiple devices. But I believe that nobody should need to hire a lawyer to understand their wireless contract and nobody should need to hire an accountant to explain their bill. That is why the Commission's bill shock initiative, developed with wireless carriers, is an especially terrific effort. As a result, going forward, wireless customers will get alerts before they reach their voice, data, text, and international roaming limits. So they will no longer unknowingly rack up unexpected charges on their bills. It's a nice demonstration of how good information can provide consumers with the confidence to adopt new technologies and services—and benefit from their functionality.

But we can do more. For starters, I believe our consumer complaint process needs an upgrade. While the digital age advances, our consumer complaint process is stuck in the analog era. Consider that every year the Commission receives roughly 400,000 complaints and inquiries. The interfaces we have, however, are dated and the information we provide has too much of the special charm of regulatory legalese.

We can do better. It is time update this process and so we can answer questions, direct queries, and help consumers navigate the range of communications services they use in every aspect of their lives.

But we should go further. This is the era of big data. We should not just collect this complaint and inquiry information from consumers and publish it in snapshot form. We should take these numbers and make them accessible in machine-readable formats, and if possible, with common metadata tagging schemes. We need to use these data to inform the Commission's policy activities and ensure consumers are treated fairly. We can also turn to others to slice and dice these numbers and identify meaningful trends that deserve our national attention, concern—or even praise.

In this way we can recommit to consumers, help them get good information about their communications services, contracts, and options—and help them make better choices.

Let me close by saying that it is an exciting time in communications. The issues before us present real challenges. But their smart execution can also yield great things: confidence for private investment in infrastructure and confidence for consumers to realize the wide range of opportunities new digital age services provide.

I look forward to working with you and answering any questions you might have.

PREPARED STATEMENT OF HON. AJIT PAI, COMMISSIONER,
FEDERAL COMMUNICATIONS COMMISSION

Chairman Rockefeller, Ranking Member Thune, and Members of the Committee, it is a privilege to appear before you this afternoon. I last testified in front of this Committee on my third day in office, and that, it turns out, was exactly three hundred days ago. Since that appearance, I have been working at the Commission to advance a number of key objectives: freeing up more spectrum for commercial mobile broadband; removing regulatory barriers to infrastructure investment; promoting a vibrant and diverse media marketplace; and making the FCC as nimble as the industry that we oversee. In some of these areas, we have made progress over the course of the last ten months. But there is still much more that we need to do.

1. Spectrum

Let's start with spectrum. A large part of our time at the agency has been spent evaluating and implementing the responsibilities that Congress entrusted to us in the Middle Class Tax Relief and Job Creation Act of 2012. In the Act, Congress tasked the Commission, among other things, with getting more spectrum into the commercial marketplace to address the looming spectrum crunch and facilitating the establishment of a nationwide, interoperable public safety broadband network.

Holding a successful broadcast incentive auction is critical to both tasks. This auction is our best opportunity to push a large amount of spectrum well-suited for mobile broadband into the commercial marketplace. And Congress has directed that proceeds from that auction will fund the deployment by the First Responder Network Authority (FirstNet) of a nationwide, interoperable public safety broadband network. For these reasons, I believe that we must implement our incentive auction authority with dispatch. Accordingly, last July, I called for the FCC to commence the incentive auction rulemaking process in the fall. To his credit, Chairman Genachowski launched a timely proceeding last September, and I thank him for that.

As the Commission moves forward on incentive auctions, I believe that four principles should guide our work. *First*, we must be faithful to the statute. It is our job to implement this legislation, not to rewrite it to conform to our policy preferences. *Second*, we must be fair to all stakeholders. This is especially important because the incentive auction will fail unless both broadcasters and wireless carriers choose to participate. *Third*, we must keep our rules as simple as possible. The broadcast incentive auction is inherently complicated; unnecessary complexities are likely to deter participation. And *fourth*, we need to complete this proceeding in a reasonable timeframe. I believe that we should aim to conduct the auction no later than June 30, 2014.

Although I am optimistic that fidelity to these principles will result in a successful broadcast incentive auction, I also see some storm clouds on the horizon. I am concerned, for example, that the incentive auction may not provide sufficient funding for FirstNet to build a nationwide, interoperable public safety broadband network. Only one closing condition was set forth for the incentive auction in last fall's Notice of Proposed Rulemaking: that the revenues from the forward auction must cover the costs of the reverse auction. Such an outcome, in my view, would be entirely unacceptable. It would mean no money for FirstNet to build out a nationwide, interoper-

able public safety broadband network; no money for state and local first responders; no money for public safety research; no money for deficit reduction; and no money for Next Generation 911 implementation. The statute mentions each of these items, which makes it difficult to square that legislation with an auction that would provide no funding for any of them. This is why I believe it is imperative for the incentive auction's rules to take into account the need to maximize net revenues.

Another worry involves limits that the Commission might place on auction participation. We need robust participation from television broadcasters, current wireless operators, and new entrants in order to produce the revenue necessary to construct the nationwide, interoperable public safety network. The more people at the party, so to speak, the better the party will be. But if the Commission preemptively tells broadcasters "You may bid this high, but no higher," many may not show up for the reverse auction. And if the Commission starts picking and choosing who may participate in the forward auction—such as by setting a spectrum cap or narrowing the spectrum screen despite the robust competition in the wireless market—it will result in less participation, less revenue, less spectrum available for mobile broadband, and less funding for public safety.

It's worth exploring a bit further the implication of the last item I mentioned. Ensuring interoperable public safety communications has been a national priority for over a decade. Indeed, the 9/11 Commission identified the lack of interoperability as a serious hole in our Nation's public safety communications and demanded that it be addressed, and this Committee has led the way in seeking to solve this problem. So given the importance of constructing a nationwide public safety network, I am committed to maximizing the net revenues obtained through the commercial broadcast incentive auction.

The Commission has already received the first round of comments in the incentive auction proceeding, and the deadline for reply comments is today. I look forward to reviewing the complete record because we can only make well-informed decisions if we listen to public input. Take, for example, the 600 MHz band plan. In the first round of comments, the Commission's proposed band plan has met with near-universal opposition. Neither broadcasters nor the wireless industry believes that it would work. Fortunately, however, our band-plan proposal did have one positive impact. It motivated broadcasters and wireless carriers to come together and reach agreement on key principles for an alternative band plan.

In addition to carefully considering the views of all commenters, I also look forward to continuing to receive feedback from Congress, particularly Members of this Committee. Given your key role in crafting this legislation, it is vital that the Commission keep open the lines of communication with you. It is also important for us to coordinate closely with Canada and Mexico to address issues involving border areas. Absent such coordination, we will have neither a timely nor successful auction.

Of course, the broadcast incentive auction isn't the only auction the Commission has on its plate. The Act also directs the Commission to auction off 25 MHz of spectrum adjacent to AWS-1 (2155–2180 MHz). This spectrum would ideally be paired with another 25 MHz block adjacent to AWS-1: 1755–1780 MHz. These bands are already internationally harmonized for commercial use, which means deployment will be swifter and cheaper than other options. If we auction off this spectrum in the next two years, it could raise billions of dollars for FirstNet, Next Generation 911 implementation, and deficit reduction.

As you know, there is a hitch in the giddyup. The 1755–1780 MHz band is currently occupied by the Federal Government. Federal incumbents don't necessarily have an incentive to consolidate their spectrum holdings or update their spectrum usage with more efficient alternatives that could improve their ability to carry out their missions. But there is an established solution for productive collaboration. The Commercial Spectrum Enhancement Act and the Middle Class Tax Relief and Job Creation Act apply an open, transparent, market-based approach to Federal spectrum through the notification-and-auction process. Let me outline that process briefly.

The notification-and-auction process begins with the FCC notifying the National Telecommunications and Information Administration (NTIA) that we intend to auction Federal spectrum for commercial use. That notification starts an 18-month clock that must run before we can reallocate the spectrum. Once we notify NTIA, Federal incumbents have 10 months to submit transition plans to NTIA's Technical Panel, which then has 30 days to review these plans. At the one-year mark, NTIA and the Office of Management and Budget (OMB) notify the Commission of the estimated costs and timeline for making that spectrum available for commercial use based on these transition plans. Two months later, NTIA publishes the transition plans, and non-federal users have an opportunity to challenge the transition plans

if, for example, they think a transition plan overstates the costs of relocating the Federal incumbent. Finally, 18 months after the initial notification, the Commission may auction the spectrum.

The Commission should commence the notification-and-auction process now to preserve our ability to auction the 1755–1780 MHz spectrum paired with the 2155–2180 MHz spectrum we are required by law to auction by February 2015. Starting sooner rather than later maximizes flexibility and fairness for everyone. Federal incumbents will have more time to develop transition plans. Non-federal users will have more time to challenge cost estimates associated with those plans. And NTIA and OMB will have more time to calculate the total costs of allowing commercial use of the spectrum. There is little downside, because if the auction does not raise more than 110 percent of the estimated costs of transitioning, auction participants and Federal incumbents are held harmless.

An important choice will face us after we commence the notification-and-auction process: We will need to decide whether the spectrum should be cleared and reallocated for exclusive commercial use or whether we should auction off only “shared rights.” I believe our goal should be clearing. If our goal is to incentivize investment in wireless networks, nothing beats clearing. That’s one reason the Middle Class Tax Relief and Job Creation Act puts a thumb on the scale for clearing and only allows sharing if clearing is technically infeasible or cost prohibitive.

Not that I’m opposed to spectrum sharing. For example, geographic sharing by creating exclusion zones around certain areas can be a useful tool. But spectrum sharing is a complicated and largely untested endeavor that requires a lot of coordination among potentially hundreds of Federal users and licensees. The largest wireless providers in America may be both willing and able to do so. But I doubt that smaller ones who lack the time or resources are. Indeed, the GAO reported to Congress last year that Federal sharing would require a lengthy and unpredictable process that would be especially costly for new entrants. And sharing could embroil the Commission in lengthy and sensitive interference disputes. After all, an interference dispute between a commercial licensee and a government user is far more likely to become mired in politics than an argument between two private parties—especially if the government agency uses that spectrum for defense or other high-priority operations. Recent experience suggests that we should be reluctant to enter this thicket.

There’s one last piece of spectrum I’m excited to discuss: the 5 GHz band. Last month, the Commission teed up the expansion of unlicensed use by a full 195 MHz in the 5 GHz band. We were not obligated to go this far—the statute only required that we commence a proceeding on opening up 120 MHz—but I was especially excited that we did because it’s smart policy.

Our proposal builds on past successes, such as our Part 15 rules that helped enable Wi-Fi and Bluetooth, and uses spectrum ideally suited for unlicensed use. The short-range propagation characteristics of 5 GHz spectrum enable localized reuse with minimal risk of interference. Manufacturers are already building devices to work on 5 GHz spectrum. And our proposal would create large, contiguous swaths of spectrum—exactly what the standard for Super Wi-Fi, IEEE 802.11ac, requires for high-speed, high-capacity data transfers. For example, a 160 MHz-wide channel could deliver 1 gigabit of data per second. In short, more unlicensed spectrum in the 5 GHz band will allow higher-speed, higher-capacity connections and will mean less congestion in apartment buildings and coffee shops, libraries, and offices.

Achieving this vision will not be without its challenges. The Middle Class Tax Relief and Job Creation Act lets us expand unlicensed use into the 5350–5470 MHz band only if we determine that “licensed users will be protected by technical solutions, including use of existing, modified, or new spectrum-sharing technologies and solutions.” We also must find that “the primary mission of Federal spectrum users. . . will not be compromised by the introduction of unlicensed devices.” To help us in these tasks, the NTIA has reported on the potential impacts to Federal Government users from expanding unlicensed use. And I appreciate their work. But you gave us the ultimate responsibility, and I hope that we will consider whether Federal incumbents should alter their systems or operations to accommodate unlicensed devices in this spectrum and what solutions will work, keeping in mind the costs and benefits of all potential options.

2. The Internet Protocol (IP) Transition

Today, almost every segment of the communications industry is competing to offer newer, faster, and better broadband services. Telecommunications carriers are upgrading DSL with IP-based technology and fiber. Cable operators are deploying DOCSIS 3.0 to increase bandwidth tenfold. Satellite providers are offering 12 megabit packages in parts of the country that never dreamed of such speeds. And mil-

lions of Americans—many of whom don't subscribe to fixed broadband service at home—now have access to the Internet on the go using the mobile spectrum the Commission auctioned back in 2006 and 2008.

Underlying these changes is a technological revolution. Analog signals have gone digital. Circuit switching is giving way to packet switching. And first-generation cellular has been replaced with ultra-fast LTE. The common thread knitting all of these changes together is the Internet Protocol (IP), a near-universal way to organize and transmit data.

What are the results of all this broadband competition? More choices for consumers, and major challenges to old business models. Traditional voice telephony is a good example. In living memory, your one option was Ma Bell. But now you can select among a number of Voice over Internet Protocol (VoIP) providers, including cable operators. Or technology companies like Google, Skype, and Facebook. Or even video conferencing providers. Essentially, voice is becoming just another application riding over the Internet. It's no surprise, then, that today only a third of U.S. households subscribe to plain old telephone service over the public-switched telephone network (PSTN), and that number is dropping each year.

Yet the Communications Act still assumes that everyone gets plain old telephone service over the PSTN. And it doesn't say clearly how IP-based services should be regulated, if at all. Nine years ago this month, then-Chairman Powell opened the IP-enabled services docket to try to resolve this anachronism and ambiguity. But many of the questions raised in that proceeding still remain. How should IP-based services be classified under the Act? What's the FCC's authority to regulate these services? And if we do have authority, how should we exercise it? In short, what approach should we take to the IP transition? No matter how the FCC answers these questions, make no mistake: our transition to an all-IP future *will* happen. But what we do will have a dramatic impact on the speed and success of that transition.

I believe that the Commission needs to take a hard look at its regulations in light of the coming IP transition, if for no other reason than that the American people are ahead of Washington on this issue. Through millions of individual choices, consumers are sending a clear message about the superiority of IP-enabled networks. (For instance, in 2011, there were over 37 million VoIP subscriptions.) Government should heed this message and give the private sector the flexibility to make investment decisions based on consumer demand, not outdated regulatory mandates.

There are signs that we've already started off on the right foot. Just this past December, Chairman Genachowski created a Technology Transitions Policy Task Force. Back in July, I called for such a task force, one that would help us take a holistic approach to the IP transition and focus our deliberations on a task that so desperately needs to be done. The Task Force will hold its first workshop next week. And I hope it will continue to solicit input from the public and develop proposals for hastening the IP transition. Given the pace of change, the Task Force should start forming recommendations promptly.

Although I would not want to prejudge the work of the Task Force, there are a few guidelines that I think should shape their deliberations and the Commission's own work on the IP transition. *First*, we must ensure that vital consumer protections remain in place. When consumers dial 911, they need to reach emergency personnel; it shouldn't matter whether they are using the PSTN, a VoIP application, or a wireless phone. The same goes for consumer privacy protections and antifraud measures like our slamming rules. *Second*, we must not import the broken, burdensome economic regulations of the PSTN into an all-IP world. No tariffs. No arcane cost studies. And no hidden subsidies that distort competition to benefit companies, not consumers. But promises are not enough: I expect we would recommend the repeal of old-world regulations that no longer make sense in a competitive all-IP world. While they remain on the books, wholesale expansion to IP may just be too tempting. *Third*, we must retain the ability to combat discrete market failures and protect consumers from anticompetitive harm. *Fourth*, we must respect the meets and bounds of the Communications Act and not overstep our authority.

How do we put these principles in practice? Probably the best way, in my eye, is to start with an All-IP Pilot Program that would allow companies to choose a discrete set of wire centers where they could turn off their old time-division-multiplexed electronics and migrate customers to an all-IP platform.

Conducting a trial run before implementing big changes is nothing new for the FCC. Before we turned off analog broadcasting, then-Commissioner Copps had the good idea of testing the concept. That experiment, which was held in Wilmington, North Carolina, provided valuable feedback and helped make the nationwide DTV transition a success. Similarly, the FCC launched a rural healthcare pilot program in 2007. The success of that pilot led to the creation of the Healthcare Connect Fund

this past year. There are plenty of other examples, from spectrum sharing to the E-Rate program.

In all those cases, we found out that predictions are no substitute for hard facts and that a paper process isn't nearly as data-driven as a real-live experiment. That surely will be true for the IP transition, which represents perhaps the most fundamental transformation in the history of telecommunications. To quote Blair Levin, the father of the National Broadband Plan, an All-IP Pilot Program would be "worth a thousand pleadings."

How should we structure this experiment? Let's start with some basic principles. For one, participation in the All-IP Pilot Program should be voluntary. No carrier should be forced to participate, and pilot sites should be located in states that are ready and willing to embrace the IP transition.

For another, tests should ideally be conducted in a variety of places that represent our country's diverse geography and population. We'll learn the most from the pilot program if there are sites in urban, suburban, and rural communities. And we have to make sure that low-income and minority communities are included, because the IP transition is for everyone.

For yet another, no one should be left behind, so residential customers with fixed telephone service today should continue to have voice service available to them even when that service is based on IP. And business customers should know in advance what IP-based services will replace what they currently have.

Finally, we must be able to evaluate the All-IP Pilot Program in order to figure out what worked and what didn't. This will help us make the broader IP Transition. With empirical data in hand, we can reject the rhetoric in favor of reason.

I should note that the All-IP Pilot Program isn't an issue that divides the left from the right, Republicans from Democrats, or urban America from rural America. Endorsements range from AT&T to the National Cable and Telecommunications Association, from Bandwidth.com to Alcatel-Lucent. Organizations like the NAACP, the National Urban League, the Rainbow PUSH Coalition, the National Grange, and the National Farmers Union also want a pilot program. So do advocacy groups like the Minority Media and Telecommunications Council, the Asian American Federation, the League of United Latin American Citizens, Women Impacting Public Policy, the U.S. Chamber of Commerce, and the American Consumer Institute.

Moving forward with an All-IP Pilot Program would send a powerful message to the private sector that we intend to embrace the IP Transition through a data-driven process. We would signal that we won't force carriers to invest in old and new networks forever. We would move closer to the day when carriers will be able to focus exclusively on investing in the networks of tomorrow rather than maintaining the networks of yesterday.

3. The Universal Service Fund

Speaking of the networks of tomorrow, we must recognize that broadband operators in rural America today face unique challenges. Unlike the urban environment, rural carriers must carefully plan their infrastructure over a five-, ten-, or twenty-year time scale if they are to recover their costs. Congress recognized this in section 254 of the Act, and we need to think long and hard about the statutory command that universal service support be "predictable."

Now, we can argue over the proper size of the Universal Service Fund, but all of us should be able to agree that given its size, it should be distributed consistent with the law and common sense. For example, a constant stream of reforms every year or two is unlikely to give investors much certainty. Instead, the Commission needs a long-term strategy and must sometimes be patient before demanding more from the industry.

Take the quantile regression analysis (QRA) benchmarks created by the Commission in the 2011 *Universal Service Transformation Order* and implemented by the Wireline Competition Bureau in the 2012 *Benchmarks Order*. The QRA benchmarks are supposed to create "structural incentives for rate-of-return companies to operate more efficiently and make prudent expenditures." But reality has not caught up with theory. Instead, the QRA benchmarks have resulted in unpredictability and uncertainty, chilling the investment climate and impeding the deployment of next-generation technologies and broadband services to rural Americans.¹

It is true that the Commission recently gave rural carriers some short-term relief from the 2013 QRA benchmarks. For example, one problem with the QRA bench-

¹ Letter from John Charles Padalino, Acting Administrator, Rural Utilities Service, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, 07-135, 05-337, GN Docket No. 09-51, CC Docket Nos. 01-92, 96-45, WT Docket No. 10-208, at 1-2 (Feb. 15, 2013), available at <http://apps.fcc.gov/ecfs/document/view?id=7022122067>.

marks was that they limited the capital investments (capex) and operating expenses (opex) of carriers separately even though carriers should trade off capex and opex to minimize the total cost of the network. This salutary measure alone should reduce the number of capped rural carriers from 159 to 70 in 2013.

But we did not go far enough. The data underlying the benchmarks are themselves flawed; the only comprehensive study of the benchmarks conducted to date found significant problems with *fourteen of the sixteen variables* used to produce them.² And the Commission has forthrightly admitted flaws in the maps it used and is in the process of collecting accurate data. Hopefully, this process will be completed and necessary revisions will be made before 2014.

I should note that, like my colleagues, I believe that establishing limits on the universal service support a carrier can receive is a good thing. In this era of fiscal restraint, no one can expect the government to continue to fund their expenses without question. But the QRA benchmarks do not reduce the size of the USF. They merely impact how funds are distributed, and I have my doubts about the utility of the QRA benchmarks as implemented.

For example, the 2013 QRA benchmarks do not incentivize efficient investment because they apply to expenses incurred two years ago, in calendar year 2011. And the *Universal Service Transformation Order* was not even released until November of that year. They do not plausibly redirect support from low-cost areas to high-cost areas because, even after our recent order, carriers like Copper Valley Telephone and Arctic Slope Telephone will have lower caps merely because they serve Alaska. They do not target inefficient carriers (only “outliers”), nor do they encourage broadband deployment. Indeed, if a rural carrier below the cap chooses to reinvest any additional support it receives in broadband, it risks pushing itself over the cap in future years, thus mitigating any benefit from that additional support. In short, I am concerned that the QRA benchmarks may simply redistribute support from one group of carriers to another arbitrarily.

The QRA benchmarks are not the only area where the Commission needs to take its statutory duty of predictability seriously. Right now, the Commission is working on the model that will underlie the long-term support envisioned by Phase II of the Connect America Fund. Although I had been hopeful that we would have it ready by 2013, that did not happen, and it looks like we will not be ready for Phase II anytime in the near future. While that is disappointing, it is better to get the answers right than to get them right now. But we should be forthright, declare that Phase II will not be ready until 2014, and, as Commissioner Rosenworcel recently suggested, move forward with the second tranche of Phase I as envisioned by the *Universal Service Transformation Order*. Better to set a goal firmly in our sights and let everyone work toward it than to keep capital on the sidelines.

4. Wireless Infrastructure

Removing regulatory barriers to wireless infrastructure investment is another priority for the Commission. When building next-generation wireless broadband networks, for example, a major challenge is complying with the multifarious federal, state, and municipal regulations covering a wide range of physical infrastructure, from towers to small cells. Some oversight is necessary to ensure sound engineering and safety, to be sure, but many procedures are not designed with facilitating deployment in mind. This makes getting the necessary permits and sign-offs an expensive, onerous, and unnecessarily long process.

The Commission has taken some steps in an effort to address this problem. In 2009, for example, we adopted shot clocks for localities to act on siting applications for wireless facilities. That ruling is now before the Supreme Court in *City of Arlington v. FCC*, and we shall see in the next few months whether that rule stands or whether we must return to you for direction. More recently, the Commission sought to clarify the scope and meaning of section 6409(a) of the Middle Class Tax Relief and Job Creation Act, which prohibits state and local governments from denying certain collocation requests.

But more must be done to reduce regulatory barriers to the deployment of wireless infrastructure. *First*, I believe the FCC should make clear that delays to the FCC’s shot clock process through moratoriums are contrary to section 332 of the

²Vincent H. Wiemer & Michael J. Balhoff, CFA, White Paper: Lessons from Rebuilding the FCC’s Quantile Regression Analysis at 17 (Feb. 2013), available at <http://go.usa.gov/4he4>; see also *id.* at 28 (“[T]he effect of the use of the model . . . is to create a much higher degree of unpredictability and to incent very conservative levels of spending by an individual carrier so that it does not risk shortfalls in recovery on its high-cost spending. Then, if most carriers take this approach each year as would be rational, each subsequent year becomes more conservative and there is a potential ‘race to the bottom.’”); *id.* at 68 (“The new QRA is duck hunting when the winds are high, the distance is farther, and, for sport, there is no light.”).

Communications Act. This would address the tactic some localities have used to evade deadlines of adopting an indefinite “time out” on the approval of wireless infrastructure.

Second, the FCC needs to address what happens if a local government doesn’t comply with a shot clock. Currently, if a city does not process an application within 150 days, the only remedy is to file a lawsuit. This increases delay and diverts investments away from networks. To solve this, the FCC should supplement its shot clocks with a backstop: If a locality doesn’t act on a wireless facilities application by the end of the time limit, the application should be deemed granted.

Third, we should modernize our rules to exempt distributed antenna systems (DAS) from our environmental processing requirements, except for rules involving radiofrequency emissions. We can do this if a technology is “deemed to have no significant effect on the quality of the human environment.” Given their small size and appearance, I believe that DAS meet this standard. We should similarly update our historic preservation regulations, yet another regulatory layer, to facilitate deployment of DAS and small cells that add capacity to networks.

5. Media

Turning to the media side of our agenda, the FCC should try to bring the congressionally mandated quadrennial review of our media ownership rules to a close by Memorial Day. In my view, we must update our regulations to reflect the changing nature of our Nation’s media landscape while at the same time preserving the Commission’s commitment to the core values of competition, diversity, and localism.

We have not yet been able to reach consensus, but I hope that we will be able to find common ground and move forward together on a bipartisan basis. I have been trying to do my part to help make that happen. I understand that whatever reforms we end up implementing will not go as far as I might prefer. For example, I believe that the time has come to eliminate the newspaper-broadcast cross-ownership rule. In this day and age, if you want to operate a newspaper, we should be thanking you, not placing regulatory barriers in your path. But that having been said, Chairman Genachowski’s proposals to eliminate the newspaper-radio and radio-television cross-ownership rules and to relax modestly the newspaper-television cross-ownership rule are steps in the right direction. He deserves credit for advancing these reforms, and I am prepared to support them.

I have serious concerns, however, about proposals that are under discussion to make Joint Sales Agreements (JSAs) and/or Shared Services Agreements (SSAs) attributable under our local television ownership rule. As broadcasters’ share of the advertising market has shrunk in the digital age, television stations must be able to enter into innovative arrangements in order to operate efficiently. JSAs and SSAs allow stations to save costs and to provide the services that we should want television broadcasters to offer.

In my home state, for example, a JSA between two Wichita stations enabled the Entravision station, a Univision affiliate, to introduce the only Spanish-language local news in Kansas. Across the border in Joplin, Missouri, a JSA between Nexstar and Mission Broadcasting not only led to expanded news programming in that market but also nearly \$3.5 million in capital investment. Some of that money was spent upgrading the stations’ Doppler Radio system, which probably saved lives when a devastating tornado destroyed much of Joplin in 2011.

For stations in smaller markets like Wichita and Joplin, the choice isn’t between JSAs or having both television stations operate independent news departments. Rather, the real choice is between JSAs and having at most one television station continue to provide news programming while the other does not. If the FCC effectively prohibits these agreements, fewer stations in small-town America will offer news programming, and they will invest less in newsgathering. And the economics suggest that there likely will be fewer television stations, period.

At the same time as we modernize our media ownership rules, we must take action to foster more minority ownership. To be sure, the U.S. Court of Appeals for the Third Circuit has instructed us to do so. But more importantly, it is the right thing to do. During my time in office, one message has come across loud and clear when it comes to minority ownership: The most significant barrier to expanding ownership diversity is a lack of access to capital.

In order to help address this problem, I support a proposal advanced by the Coalition for Broadcast Investment (CBI) to end our current de facto ban on any foreign investment in U.S. broadcast holding companies that exceeds a 25 percent benchmark. Instead, we should evaluate proposals for foreign investment on a case-by-case basis. Our current policy addressing foreign investment in broadcast stations has been rendered obsolete by changes in the marketplace and the passage of time. Today, foreign companies can own a majority stake in cable operators, cable pro-

grammers, common carriers, Internet backbone providers, satellite video providers, newspapers, and other entities. Yet a foreign company cannot hold more than a twenty-five percent interest in a single AM radio station. This doesn't make any sense.

If we relax restrictions on foreign investment, minority Americans will have more ways to raise capital and expand their participation in the broadcasting industry. That's why this idea is supported by a wide range of groups who care about diversity, including the Minority Media & Telecommunications Council, the League of United Latin American Citizens, the National Black Chamber of Commerce, and the United States Hispanic Chamber of Commerce. I applaud the Media Bureau for seeking comment on CBI's proposal last month and am hopeful that we will be able to move forward on it in the near future.

Let me mention one last thing before I leave the media space. Last September, I proposed that the Commission launch an AM Radio Revitalization Initiative. In the ensuing months, I have been amazed and gratified by the outpouring of support I have received for this proposal from AM radio station operators from across the country. We at the Commission last comprehensively reviewed our AM rules over twenty years ago, and the band's challenges have multiplied since that time. While I understand that AM radio isn't the hippest matter on the Commission's agenda, I believe that AM stations provide an important service to the American people, and we should not let the AM band wither on the vine. Rather, we should take action soon.

6. Modernizing FCC Processes

Beyond concluding, I would like to touch on a subject that affects all areas of the Commission's work: process reform. We at the FCC must strive to be as nimble as the industry that we oversee. All too often, proceedings at the Commission needlessly drag on for many years. For example, it shouldn't have taken the Commission nine years to respond to Martha Wright's petition seeking redress for the high long-distance rates she paid to speak with her then-incarcerated grandson. And it shouldn't have taken the Commission almost twelve years to issue an eleven-paragraph order responding to an application for review filed by a Georgia low-power television station (ironically, an order chastising a private party for missing a deadline).

The good news is that we are making progress on this front. Commissioners are voting on items more quickly after they are placed on circulation. The time between the adoption and the release of items has decreased. And we have reduced the FCC's backlog. Chairman Genachowski and the rest of my colleagues deserve credit for these accomplishments. But we still have room for improvement.

Since taking office, I have proposed a variety of reforms to improve the Commission's performance. We should streamline our internal processes where possible. For example, let's adopt a procedure akin to the U.S. Supreme Court's *certiorari* process for handling applications for review and let's speed up our processing of smaller transactions. We should also take statutory deadlines more seriously. It is unacceptable that we have only released the congressionally-mandated annual video competition report two of the last six years. When Congress tells us to do something, we need to get it done on time. We should establish more internal deadlines, such as a nine-month deadline for ruling on applications for review and petitions for reconsideration along with a six-month deadline for handling waiver requests. And when we adopt industry-wide rules, we should more frequently use sunset clauses that require us to eventually revisit the wisdom of (and, if necessary, revise or repeal) those rules.

Beyond reforming our rules, we should become more accountable to the public and to Congress about how long it takes the Commission to do its work. One way to do this would be by creating an FCC Dashboard on our website that collects in one place key performance metrics. Let's keep track of how many petitions for reconsideration, applications for review, waiver requests, license renewal applications, and consumer complaints are pending at the Commission at any given time. And let's compare the current statistics in all these categories against those from a year ago, from five years ago, so everyone can see if we are headed in the right direction. If we make it easier for others to hold us accountable for our performance, I'm confident that we would act with more dispatch.

My emphasis on acting promptly is not just about good government. It is also about the impact that the FCC's decisions (or lack thereof) have on our economy. As the pace of technological change accelerates, so too must the pace at the Commission. We can't let regulatory inertia frustrate technological progress or deter innovation.

* * *

Congress has entrusted the Commission with important responsibilities, from managing spectrum to facilitating deployment of new infrastructure to overseeing the media marketplace. With a collaborative approach among FCC Commissioners and staff and consultation with Congress, I'm confident that the agency can discharge these responsibilities in a way that will serve well the public interest. Chairman Rockefeller, Ranking Member Thune, and Members of the Committee, thank you once again for holding this hearing and allowing me the opportunity to speak. I look forward to listening to your views, answering your questions, and continuing to work with you and your staff in the days ahead.

The CHAIRMAN. Thank you very much.

I will start the questioning. My first two questions, probably my only two questions this round, will be for all commissioners. And they are about the E-Rate.

As I mentioned in my remarks, the E-Rate program has been tremendously successful. And I think we have to protect what we have, and I think we have to, understanding the digitalization of virtually everything—everything going wireless, everything going everything—we have to be prepared for the future.

So my question to each of you—and if you would answer it individually, and hopefully with a “yes” or a “no”—if a speech is necessary, a speech will be heard—would you commit to working with me to protect E-Rate's accomplishments as well as updating the program to meet the present and future needs of our schools and libraries?

Mr. GENACHOWSKI. Yes, absolutely. I mentioned in my opening remarks, E-Rate has been an extraordinary success. There is a big opportunity and need around education technology, and I look forward to working with you and the Committee.

The CHAIRMAN. Thank you, Mr. Chairman.

Mr. McDowell?

Mr. MCDOWELL. Yes, but we must address contribution reform first.

The CHAIRMAN. Contribution reform?

Mr. MCDOWELL. For universal service, generally speaking.

The CHAIRMAN. OK.

Mr. MCDOWELL. How we raise the revenue.

The CHAIRMAN. Commissioner Clyburn?

Ms. CLYBURN. Anchor institutions like schools and libraries are important to communities. E-Rate has been important to schools and libraries, hence important to all communities. So, yes.

The CHAIRMAN. Thank you.

Commissioner Rosenworcel?

Ms. ROSENWORCEL. Yes. Absolutely.

In my time at the Commission, I have been visiting superintendents in places as far-flung as Kotzebue, Alaska, and also Miami, Florida—places that you really can't get much more different on on this earth. What is neat is that, together, they consistently believe in the power of E-Rate to bring digital learning to schools. And I think it is important that we update it now for this new century.

The CHAIRMAN. Thank you, Commissioner.

Commissioner Pai?

Mr. PAI. Yes, Mr. Chairman.

One of the things I have been struck by is the power of a broadband connection in a school beyond the educational context.

For example, when I visited Kansas City recently, I visited with a school nurse who, by a video connection to the University of Kansas Medical Center, was able to develop an on-the-spot recommendation for a health-care plan for a child who was feeling ill, which obviated the need for a parent to take time off from work and travel to this school, which enabled the child to get much quicker medical attention.

And I think we would do well to consider some of the other benefits beyond mere learning that the E-Rate program, through broadband connections in schools, can provide.

The CHAIRMAN. Thank you all.

My second question, again for all commissioners, hopefully “yes” or “no”: When Congress authorized voluntary incentive auctions earlier this year, we made a point of providing funding for FirstNet. As Congress has always done, we deferred the intricacies of action—and how happy the Commissioner is—to the expert agency, which is the FCC.

Now, getting these auctions right and making them simple enough to encourage sufficient broadcaster participation will be incredibly complex, burdensome. Consistent with the law, the FCC is free to make the policy and technical decisions it finds are in the public interest. But I hope it cannot lose sight of the broader national purpose of funding FirstNet. As I said before, the success of these auctions will be judged by their ultimate ability to provide sufficient revenue to fund FirstNet, which is, as yet, pretty much unknown to the public, but to those of us who know it, it is a blockbuster.

So, question number one: Do you understand the need for the incentive auction rules to provide sufficient funding for FirstNet?

Mr. GENACHOWSKI. Yes. Very important.

The CHAIRMAN. Thank you, sir.

Mr. MCDOWELL. Yes. I want to make sure we don’t undermine that goal.

The CHAIRMAN. OK.

Ms. CLYBURN. Yes. And I believe a market-based engagement will give us the maximum opportunity to achieve that goal.

Ms. ROSENWORCEL. Yes, absolutely.

Mr. PAI. Yes.

The CHAIRMAN. Thank you.

Do you agree that acting expeditiously to commence these auctions and avoiding unnecessary delay is important?

Mr. GENACHOWSKI. Yes.

Mr. MCDOWELL. Yes.

Ms. CLYBURN. Yes.

Ms. ROSENWORCEL. Yes.

Mr. PAI. Yes.

The CHAIRMAN. You see, it is wonderful being Chairman.

[Laughter.]

The CHAIRMAN. And my next question is for Chairman Genachowski, and it is about violence, which you can’t do anything about. But my time has run out. So the estimable Senator from South Dakota—tall, handsome, pre-Presidential—Senator Thune.

[Laughter.]

Senator THUNE. Let’s move on.

[Laughter.]

Senator THUNE. Mr. Chairman, the incentive auction is really important. As I mentioned in my opening statement, we need to figure out how to free up more spectrum to meet the demand that is out there.

Mr. Chairman, you are closely associated with the incentive auction part of the TV spectrum, particularly, since it was first proposed in the National Broadband Plan. In your prepared statement, you said the agency plans to run the auction next year. But your term ends this summer.

What steps are you taking today to ensure the incentive auction will be a success and will occur in a timely fashion irrespective of who might be leading the Commission next year?

Mr. GENACHOWSKI. Well, as you mentioned—and thank you for mentioning it—this is something, the incentive auction idea is part of a larger strategy to free up spectrum that we have been working on for 4 years at the Commission.

The truth can be told, we started working on implementing the law before it was passed. And we were able to move quickly with a comprehensive proposal in September. We have also put out for comment the software that we would use in the repacking piece. I think comments came in today.

So the Commission is on track to move forward with this auction and other steps to free up spectrum for our mobile economy.

Senator THUNE. Let me ask this of any other commissioners. Are you all optimistic that the Commission will be holding these auctions next year?

Mr. McDowell?

Mr. MCDOWELL. I have lived through the AWS-1 auction and the 700 megahertz auction, and these things can take longer than planned. There are a variety of unforeseen variables that can pop up. For instance, with the 700 megahertz auction, actually the potential bidders came to us and asked us for a while to hold off.

This auction, without any hyperbole, by far is the most complicated spectrum auction in world history. So while I have always been a proponent of shot clocks at the FCC, just like in basketball, I think it is important to work hard toward a goal, but let us not be surprised if there is something unforeseen that arises.

Senator THUNE. And would anybody else like to comment on that? And then I would also ask this question, and that would be: What is the key challenge that you see in meeting that timeline?

The rest of you can comment about whether or not you think next year is a possibility or if that is overly optimistic. But the second question would be, what is the key obstacle or the key challenge?

Ms. CLYBURN. Senator, it is a very aggressive, ambitious timeline that I feel confident that we will meet. We have a designated, dedicated team to that end. We have an incredibly open process. You have a LEARN—we call it LEARN—dynamic where broadcasters can continually get updated and ask questions.

The open engagement and the desire to achieve this market-based dynamic is so strong that I feel confident that we will get there. Of course, there could be unforeseen circumstances, but all

of the momentum and all of the incentives are in place to achieve that 2014 goal.

Ms. ROSENWORCEL. Yes. I agree with Commissioner McDowell, these are the most complex spectrum auctions that the world has ever seen. But we have a terrific team in place, ready to go.

And, furthermore, I think it is important for the agency to set deadlines, both for its incentive auctions and its traditional commercial auctions. I think deadlines focus the mind. They make clear to stakeholders how they should organize their activities. And I think they encourage the formation of capital, which is important in this case for funding FirstNet.

Mr. PAI. Senator, I agree with my colleague. And I think that, although it is more important to get it right than to get it done right now, nonetheless I believe, as I said when we kicked off the implementation process last September 28, that it is important for us to set a deadline. I don't think the uncertainty hanging over the broadcast or the wireless industry serves either of those industries or the American consumers very well.

In terms of your second question, the biggest challenge, I think there are a number of them, from international coordination to the details the panel is hearing. But the biggest one, to me, is ensuring that the Commission structures the auction in such a way that both the participants in the forward and the reverse auction have an incentive to come to the table.

The auction is going to be a failure if we don't persuade broadcasters that the rules are simple and compelling enough for them to participate. The auction will be a failure if we artificially restrict who can participate in the bidding on the incentive auction spectrum.

So if we at the FCC keep our focus on what the Chairman said in his opening statement—maximizing the resources for FirstNet and making sure that this auction is a success in terms of participation—we will be on the right track, and hopefully we will be on the right track next year.

Senator THUNE. Mr. Chairman, I have another question, but we have a lot of people here today, so I will yield the floor back to you and allow some others to ask questions.

The CHAIRMAN. Thank you, sir.

Senator Ayotte?

**STATEMENT OF HON. KELLY AYOTTE,
U.S. SENATOR FROM NEW HAMPSHIRE**

Senator AYOTTE. Thank you, Mr. Chairman.

I want to thank everyone for being here today. I appreciate the work done by the Commission.

Chairman Genachowski, I wanted to follow up on the conversation that you and I had in my office not too long ago about spectrum. We have already heard about the value of spectrum and how important it is to our economy and our communications network. But the Pentagon holds certain spectrum. You and I talked at length about that in my office. I wanted to follow up.

Where do you see us in terms of the Commission's discussions with the Pentagon as to how we might commercialize some of that Federal spectrum in an appropriate way that still protects our na-

tional security but also allows us to use that spectrum in an appropriate way?

I serve on the Armed Services Committee, so this would be sort of where the two committees intersect.

Mr. GENACHOWSKI. So there are two tracks to freeing up more government spectrum for commercial use. As I think we talked about, the government has about 60 percent of the most desirable spectrum. And even though military needs in the U.S. are going up, that is more than is necessary, and a lot of it is inefficiently allocated. So wherever we can clear and reallocate government spectrum and make it available for commercial, we should.

We should also move forward on a second track, which is identifying opportunities for more sharing of government spectrum with commercial. There is government spectrum, for example, that is only used in certain parts of the country at certain times. That can be made available more widely.

This is good for everyone because there is a growing gap between military communications equipment and commercial—growing gap as measured by price and functionality. And more government-commercial/military-commercial spectrum sharing can help close that gap by bringing more commercial know-how into the military's processes.

And my discussions with senior military officials on that are promising, I would say, and I think we are seeing the military lean more into it. But it is something that I would look forward to working with you and the Committee on.

Senator AYOTTE. And do you think it is possible—I would open it up for not only your comments but anyone on the Commission—for us to free up some of the spectrum that is currently allocated to the Pentagon in a way that would be actually be cost beneficial to our government?

Mr. GENACHOWSKI. Yes. And, in general, that is how it has been done. There are rules on the book that require the measurement of the costs of moving and making sure that it, on a cost-benefit analysis, survives. Spectrum is so valuable on the commercial markets now—even unlicensed spectrum has tremendous value in terms of job creation and business creation—that this is a net win for the country.

Senator AYOTTE. We are talking about the spectrum that the government has, but we have to move beyond that to meet our capacity. So I wanted to get your thoughts on how do we then open up the spectrum pipeline—let's assume we can work through the issues—to more efficiently use the government spectrum.

Mr. MCDOWELL. Well, first of all, back to your previous question, which is, it is absolutely true that the Federal Government occupies the vast majority of the most valuable spectrum. And simply spectrum-sharing is not going to meet our nation's needs. We need to have maybe work between Congress and the Executive Branch on forming a way to provide incentives for the Executive Branch users of spectrum to yield it, to surrender it, for auctions for exclusive-use licenses. That is where there is the most value proposition. And right now it is an opaque process which doesn't really work.

But in the meantime I think what you really need is a full audit of all Federal spectrum that is as transparent as possible, given all

the classified uses of some spectrum. But have that audit so we know what we are talking about, and then determine from there. Because right now the process is far too opaque.

Senator AYOTTE. Does anyone else have anything they want to offer on that?

Ms. CLYBURN. In our traditional means of delivering spectrum to market, auctions, our AWS auctions and the like—all of those things, retooling and reconfiguring and recalibrating our rules to ensure that that gets to market. It is an all-of-the-above, as the Chairman likes to say, approach, all-hands-on approach.

And I think you would be proud of the FCC because we are doing that and talking about that and facilitating that through our rules and regulations.

Senator AYOTTE. Thank you.

I wanted to follow up, Commissioner McDowell, about what you talked about with respect to what happened in Dubai. What more can Congress do to stop this infringement on the Internet?

Mr. MCDOWELL. I think it would be very helpful—first of all, as I met—I know that the Chairman was there, too, and members of your staffs were there as well—it came up very frequently that the bipartisan, unanimous resolutions—thank you, Senator Rubio—that were passed last year were really heard quite clearly. I think amplifying even further, perhaps making those resolutions the law of the land, could be very, very helpful.

But we also need to act very quickly. We also have a power vacuum a bit at the State Department. We have had Ambassador Phil Rivera retire, his legendary deputy Dick Beard retire. And I know those positions will be filled soon, but they can't be filled soon enough. The groundwork for the 2014 basically constitutional convention of the ITU really starts now. And there is a big meeting in Geneva in May that will start setting the tone for that.

So there is a lot that Congress could do.

Senator AYOTTE. Thank you very much, all of you. I appreciate what you do.

The CHAIRMAN. Thank you, Senator Ayotte.

Senator Blunt?

**STATEMENT OF HON. ROY BLUNT,
U.S. SENATOR FROM MISSOURI**

Senator BLUNT. Thank you, Chairman.

Chairman Genachowski, on the Universal Service Fund, I think 2011 you all initiated a rulemaking process so that that could also be applied and—maybe be applied and/or transitioned to broadband. Now, one of my concerns about this, I think you will recall, has always been the failure to define appropriately “underserved” as opposed to “unserved.”

My belief is now that you decided in that rule that “underserved” was a current carrier that needed to upgrade, as opposed to bringing another person in to become a competitor? Am I right in that?

Mr. GENACHOWSKI. Two points. I am not sure. One, we did adopt the comprehensive reform last year, and part of the design principle was that the funding would go to unserved areas and not to fund competitors.

Senator BLUNT. Right. And then in—how do you allocate the underserved money? Or do you allocate that money?

Mr. GENACHOWSKI. A core design principle of our reforms is that the money should go to unserved areas and help get broadband built out where it doesn't exist, and not fund over-builders or—

Senator BLUNT. Good, good. Well, my concern all the time has been that.

Now, how are we doing on getting that money out? Is there anything you can—are you in the process of further implementing that rule or updating the amounts or what it takes to get money out there?

Mr. GENACHOWSKI. Yes. We got a first tranche out very quickly. It was about \$140 million. And that is being used now to build out broadband to about 400,000 unserved Americans.

We are looking now at the next step. We want to balance moving quickly to support broadband to unserved homes and making sure we do it in an efficient, fiscally responsible way.

Senator BLUNT. And do you have a cap on the amount of money to unserved homes?

Mr. GENACHOWSKI. Overall, we have the program now on a budget, and so we are operating within that budget.

Senator BLUNT. Now, somebody told me that there was a cap of around \$750 or \$775?

Mr. GENACHOWSKI. So that is—in order to determine how much funding goes to a particular home, we need to come up with a number. And there was a lot of debate over that number. And in the first tranche of funding, it was based on a \$775-per-home figure.

Some companies want more. If we spend too much, we are wasting money. If we make it too low, then we are not reaching everyone. And so we are now looking, having gotten that 775 money out in the first tranche, how should we handle subsequent funding under the program.

Senator BLUNT. And how do you think you should do that?

Mr. GENACHOWSKI. Well, we have a record that is open on that. And, you know, our goal is to maximize the bang for the buck for the program. It is on a budget. We can only spend the money in a limited way. And we want to maximize the number of unserved Americans who get broadband as a result of the program.

Senator BLUNT. And so you are evaluating how many homes you get to at this level and how many you might add at some higher level, and, at some point, whether there is a cost-benefit analysis there?

Mr. GENACHOWSKI. That is exactly right. That is exactly right.

Senator BLUNT. On media ownership, another topic I wanted to ask you about, I have on my tablet that is here with me, I have three Missouri newspapers, a couple of national newspapers, three or four other news—I suspect I have a dozen different ways to get news right here with me.

The media ownership requirements are long before any sort of proliferation of media like this. Where are we on updating those requirements?

Mr. GENACHOWSKI. Well, we are in the middle of an open proceeding. And, on one hand, as you say, the world has changed. Newspapers certainly have come under real pressure. On the other

hand, the new news and information that you see still isn't received by about 30 percent of Americans.

And so we are in, I think, an interim period where the concerns about media consolidation remain important, as does the desire to make sure that Americans, wherever they live, can get local news and information and we continue to have vibrant local news-gathering in the U.S.

Senator BLUNT. Any additional views from anybody else on media ownership?

Mr. McDowell?

Mr. McDOWELL. Senator, I think we are long overdue for modernization of our media ownership rules. The last time the Commission voted on an order on this was December 2007. I thought at the time those were mild and meek.

I think the marketplace has moved past the Commission. The investment and the eyeballs and the ad dollars are all flowing to new media. And I think there are a lot of millstones on the chest of traditional media as they face this competition. Congress mandated in the 1996 act, under Section 202(h), that we modernize these rules in the face of new competition, and it is high time that we do that.

Senator BLUNT. Mr. Pai?

Mr. PAI. Senator Blunt, if I could just add very quickly, I associate myself with Commissioner McDowell's comments.

And I would add, as well, that one of the proposals that is on the table, which I think properly, you know, should be off the table, it involves the effective prohibition on joint sales agreements and shared service agreements. Especially in smaller markets like Joplin or Springfield, that might be the difference between a broadcaster staying in the business and providing local news or exiting the business.

So, for example, in your southwest corner of the state, a joint sales agreement between Nexstar and Mission Broadcasting allowed the broadcast station to save \$3.5 million, which they then poured in to upgrading their Doppler radar system, which proved to be very useful in 2011 when the tornado hit.

So I think we should be very careful about the effect of our media ownership rules, especially in smaller markets like that.

Senator BLUNT. Ms. Clyburn, Ms. Rosenworcel, either one—

Ms. CLYBURN. And I agree, we should be very careful, looking at the current markets, looking at the critical information needs of all communities. And so when we move toward this path—and we rightfully should every 4 years review—if not, you know, every 4 years mandated—review our current framework. But we need to be careful that every citizen has a pathway to engagement—political engagement, public safety engagement, and alike.

Ms. ROSENWORCEL. I think we are grappling with a lot of different trends here. On the one hand, just as you said at the outset, the ways that we create, distribute, and consume content are very different than they were just a few years ago. On the other hand, when you look at how consumers get news and information, it is not all that different than it used to be.

The Pew Research Center has done some studies, and they found that 74 percent of consumers still get their news from local broadcast television stations, and the rest of them get their news, typi-

cally, from radio stations and newspapers. In a study they did up in Baltimore, they found that 95 percent of originating news came from traditional news media—newspapers, television, and radio.

So we are dealing with new and novel ways to get information, but sometimes those who are creating the information are the same as they used to be.

On top of that, we have a duty to respond to the Third Circuit Court of Appeals, which criticized the FCC last time it tried to relax these rules for not taking into consideration the diversity of media ownership in this country.

So we are going to have to deal with all of these trends—how everything is changing, how sometimes the origination of news still lies with traditional medium, and how the diversity of ownership affects the news that we get. I think we have before us a whole bunch of issues on that, and I think every single one of us at this table is grappling with the way forward.

Senator BLUNT. Thank you, Mr. Chairman.

The CHAIRMAN. That is it? OK.

Senator Coats, I want to apologize. I—

Senator COATS. Oh, I was just all teed up and ready to go.

The CHAIRMAN.—fingered you, and then I was handed a new piece of paper with instructions. So I am going to call on you shortly, but first you have to listen to Senator Pryor.

Senator COATS. I am always happy to defer to Senator Pryor.

Senator PRYOR. Thank you, Mr. Chairman.

And thank you, Senator Coats.

Chairman Genachowski, let me start with a question to you about the Connect America Fund. Certainly, you guys are working very hard to do, I guess, a final design on the long-term Connect America Fund. But I know that you also could, with your discretion, do some incremental funding now.

I think we have about 400,000 Arkansans who do not have access to rural broadband. And, yes, they say time is money, but also time is lost opportunity.

And I am just wondering if you all are considering doing some incremental funding now as you put the longer-term Connect America Fund in place.

Mr. GENACHOWSKI. Senator Pryor, I want to thank you, other members of this committee, and my colleagues for all working together to be in a position where we can now be talking about implementation of a Connect America Fund focused on broadband. Four years ago, people would have said, This is impossible.

The implementation issues are challenging. This is a similar issue to the one that Senator Blunt and I just had an exchange on. We want to get broadband out to unserved rural Americans as quickly as possible and do it in a way where we are not overspending. Because if we overspend, we are taking money away from some other rural American who would get it.

And we have been working together as a group, with an excellent staff, on this. And we are diligently working to get this implemented quickly and consistent with our principles.

Senator PRYOR. Thank you.

Commissioner Clyburn, let me ask you about the 21st Century Video Accessibility Act. It appears that the FCC, the device indus-

try, and the disability community are all working closely to try to come out with the right set of smart rules. Do you know the timeline, when those rules might be completed?

Ms. CLYBURN. There are a number of things—there is a good story to tell with that legislation, which is the most significant piece of legislation for those people with disabilities since the act in the 1970s.

So what is happening is this incredible desire to connect all communities, this incredible desire to ensure that programming is accessible to all. So we have a lot of things that are going on, particularly as it relates to emergency services, next-generation 911. All of these things are on the table and are being discussed.

The text-to-911 is important. You know, how do those with disabilities, you know, how do they find out what is going on around them? So we have a series of timelines that you will hear about during the course of the year that will bridge those gaps, in terms of crawls, television programming, ensuring that you have an audible means of knowing, if you are sight-impaired.

All of those things are going into place; some significant deadlines that are being met this year. This is a great year for this act, and it is going to bridge some incredible gaps with those with sight and hearing disabilities. And you should be proud. With IP captioning coming up—it is just the sky is the limit. It is just wonderful.

And in terms of implementation of CVAA, we have not missed one deadline. There has been a cooperative relationship. There has been—equipment manufacturers and the like. We are bridging incredible divides, and the communities are really—they are elated over what we have done.

Senator PRYOR. Great.

Commissioner Rosenworcel, you notice I didn't ask you about that because you know more about it than I do, and I thought you might embarrass me with your answer.

[Laughter.]

Senator PRYOR. But let me really change gears because I know that you really basically helped write that legislation, and we appreciate it. It has been a good success story. But let me change gears on you, if I can, and ask you about public safety in wireless and IP-based networks.

I know that if we look at Superstorm Sandy, I hear that right after the storm about one in four cell towers were out of commission. And, you know, that is complicated because a lot of these are independently powered.

But my question for you is, what can Congress do, what can the Commission do to make sure that we address these problems as we go forward?

Ms. ROSENWORCEL. Well, as you suggest, Superstorm Sandy wreaked havoc on our communications systems. And it is hard to forget the images that we all saw—the floods, the fires at the shore, and some of the impossibly large snowdrifts out west.

I think that it demonstrated a few things to us. First, as the Nation transitions to IP and wireless networks, we need to have a conversation about commercial power. Our old copper plant in this country had an independent electrical source, so when unthinkable

weather occurred, you could pick up the phone and call for help. But now our wireless and IP networks are dependent on commercial power, and when commercial power goes out, they don't work. A lot of people realized that in Superstorm Sandy. And, as you said, one in four of our wireless towers in the affected region was out during the storm.

So I think now, as we make this transition to new wireless and IP networks, this is the right time to have a national conversation about what it means when all of our communications relies on commercial power. We have to identify how providers get access to fuel, how they have generators, how they have backup power. And we also have to talk to consumers about this so that they have solar chargers and backup power for their own handheld devices, as well.

Senator PRYOR. Mr. Chairman, thank you. That is all I have.

I am going to ask Chairman Genachowski for the record about cybersecurity and the things that they have done at FCC and what recommendations they may have to Congress on what we should be doing on cybersecurity. But I will submit that for the record.

Thank you.

The CHAIRMAN. Thank you, Senator Pryor.

And, Senator—no, Dan. I want to do it, but I can't.

Senator WICKER, subcommittee ranking?

Senator COATS. All right. I apologize. I do have something I just have to go to. But I will be glad to pick it up at another time. And I understand. No, I—

The CHAIRMAN. Wait, wait, wait.

Senator WICKER. Please go ahead.

The CHAIRMAN. See, he is yielding.

Senator COATS. No, I—

The CHAIRMAN. Dan, charge.

**STATEMENT OF HON. DAN COATS,
U.S. SENATOR FROM INDIANA**

Senator COATS. Roger, I will tell you what. I will be very brief, and then I will yield you the balance of my time, and you can do 7½ minutes. I appreciate that. I have a—

Senator WICKER. The clock is ticking.

[Laughter.]

Senator COATS. Mr. Chairman, thank you. It is good to be on your committee and to serve with you and Senator Thune.

And in another life, I served on the Energy and Commerce Committee in the House of Representatives, a long time ago, under John Dingell. And while I guess, as a Republican, I would prefer to be serving under Chairman Thune, I had a good experience with Congressman Dingell, and I know I will have a good experience with you—

The CHAIRMAN. Thank you.

Senator COATS—in your last 2 years here. And it is a privilege to serve with you.

Back then—this was in the 1980s, my 8 years on Energy and Commerce—the competition and innovation was occurring so fast—at least I thought it was fast—that we had a tough—the process of legislating and regulating could hardly keep up with the change.

We are light years ahead of where that was 30 years ago. And today it is mind-boggling how quickly it changes.

And so I guess my question is, how do we begin to, through the legislative process and regulatory process, keep up with this innovation? I mean, we are passing laws and regulations that are out of date before they even get enacted.

And my question is this: Looking back over your tenure and reflecting on it, do you have any suggestions or things you want to leave with us relative to, Boy, if we had known that or could have done that faster, this would have kept us up to speed? Is there any advice relative to barriers to regulation or the process in which it was played out that you would, upon reflection, want to change?

Mr. GENACHOWSKI. It is a great question. And, you know, one of the things that I think, working together, we have gotten right is that we focused on some of the enduring principles in this space that remain consistent even as technology changes. You know, one is: Make sure that we have infrastructure to support the new economy. The second is principles like universal service and competition and public safety.

And I think that keeping ourselves focused on that, that has led us to ideas like we have to free up spectrum in creative ways, and it led this committee to pushing through incentive auction legislation on a bipartisan basis. It led to reform of the Universal Service Fund.

And so I think working together on those issues—they were largely bipartisan when you were in the House; they should remain so—is a strategy that has worked and I think can continue to work.

Senator COATS. Thank you.

Mr. Chairman, I yield the balance of my time, if it sits with the chair, to my colleague from—

The CHAIRMAN. He gets the balance of your time and all his time.

Senator COATS. No, no. It is the other way around.

[Laughter.]

Senator COATS. I made him a deal, and I want to stick with it.

The CHAIRMAN. All right.

Senator COATS. Thank you.

Senator WICKER. The ways of the Committee are complex, but I am glad to be talking.

Mr. Pai, it is generally acknowledged that modernization of the 21-year-old 1992 Cable Act is a major undertaking that will take some time and take some doing. You made a speech the other day saying that there are some things the Commission can do to provide relief in the interim for folks like cable services and multi-channel video programming distributors through the use of expanding and extending the FCC's forbearance authority.

Are you making any progress with the other four members on this? And do you think it also makes sense to expand the biennial review in the same vein?

Mr. PAI. Well, Senator, thank you for the question. I certainly would welcome the support of my colleagues. It is a very recent proposal, though, so I haven't had a chance to pitch it to them. But I will put the hard sell on as soon as I can.

Senator WICKER. Surely they read your speech, though.

Mr. PAI. I apologize to them in advance if they did, if they had to slog through that speech.

But I think one of the fundamental changes that we have seen in the communications landscape involves the video marketplace. It has changed so much from when I was a kid and we had three channels and my dad would direct me to, you know, put the rabbit ears just so so we could get reception. Now we can receive on any number of devices high-definition programming when we want it. And so I think one of the central problems that we confront as regulators is that our rules simply haven't kept up the pace with the changes in the video marketplace.

And I think of the telecom sector as providing a useful example of how we could operate in the video context. Section 10 of the Communications Act, as you know, allows the FCC to forbear from the enforcement of a statute or regulation if it determines that such enforcement is no longer necessary to protect competition or to promote the public interest.

It seems to me that it would be valuable for the FCC to have similar authority with respect to Title VI, the video context. That would allow us to do what we have done on the telecom side, to relieve wireline providers who are trying to reach underserved, unserved, and in some cases even served Americans with better, faster, and cheaper telecom services.

And I think if we did have that forbearance authority, it would allow the Commission to be a little more flexible in terms of its application of the statute, because right now we don't have that flexibility.

And the 1992 Cable Act, as you pointed out, captured a snapshot of the market at a moment in time that no longer really applies. Your cable operators, for example, had a 95 percent market share 21 years ago. That has gone below 60 percent now. Over-the-top distribution was unheard of even, you know, 10 to 15 years ago, and now you have people who are running Internet-only channels, reaching millions and millions of people.

So if the Congress saw fit to give us forbearance authority, I think it would be very valuable and would allow us to really update our regulation.

Senator WICKER. But we would have to give you that authority?

Mr. PAI. That is correct, yes.

Senator WICKER. And what about this biennial review question?

Mr. PAI. So I have been promoting a more robust vision of what biennial review could be, and that is the full commission voted, which we would comprehensively review all of our regulations and, especially in the video context, determine whether any of them needed to be repealed or revised to meet the needs of the modern marketplace.

And that is something that we could do—we are mandated to do it regularly by Congress. And I think if we spent more time as a commission really doing that, I think we could update our rules appropriately.

Senator WICKER. Commissioner Rosenworcel, that sounds like a really good idea, don't you think?

Ms. ROSENWORCEL. Well, let me start by saying, 1992 was a long time ago. I had a dot matrix printer, I certainly didn't have a cell

phone, and I never would have imagined that I could watch video on a tablet in my lap. So I will agree with you that the law is old.

At the same time, I think there are some virtues in that law that still are important to us. I think the law speaks to competition. I think it speaks to making sure everyone can have local content, including local news. And I think it speaks to the diversity of ownership and programming as being an important issue.

So I think there are still some enduring values in the law that matter to us and we can still apply. But I would agree with my colleague, Commissioner Pai, that we can regularly scour our rules and try to identify those that have outlived their usefulness. And while we may not agree on every single rule we should get rid of, I think the process and doing that regularly is a good exercise and something that the Commission should do.

Senator WICKER. Did you read Commissioner Pai's speech?

[Laughter.]

Ms. ROSENWORCEL. I slogged through all nine pages of it.

[Laughter.]

Senator WICKER. So what about, then, specifically—

Mr. PAI. Tough crowd.

Senator WICKER.—working with us on a simpler solution, putting off cable reauthorization until another Congress, but helping cable services and MVPDs presently?

Ms. ROSENWORCEL. Well, the thing that I know about cable and satellite services now is that their rates go up year-in and year-out. And both as a consumer and as someone who sits in a regulatory position, I think that is a problem, and I think it is something that merits a fresh look.

Senator WICKER. Well, if I had time, I would ask the chair what he thinks of that.

Mr. GENACHOWSKI. I think that continuing to look at our rules, working with the Committee on the best processes to do that, remains vital.

Over the last few years, we have not only done reviews, but we have done major actions to remove barriers. The elimination of intercarrier compensation could be the single largest elimination of a set of rules that the FCC has done in a very, very long time—removing barriers to broadband build-out, things like tower siting, shot clocks.

So I agree with Commissioner Pai that we should think about how to continue to do this, and I agree with Commissioner Rosenworcel that there are enduring values in the Communications Act and issues that we need to continue to focus on.

The nature of the sector now—and we heard it in the opening statements from both Ranking Member Thune and from Senator Pryor and from Chairman Rockefeller—this is a sector that is thriving, that is growing, where the opportunities are getting larger, as are the challenges. And so staying current with the obstacles and barriers to ongoing private investment in innovation is absolutely essential, and we still have a lot of work to do.

Senator WICKER. Thank you very much.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much.

And now, Senator Fischer.

**STATEMENT OF HON. DEB FISCHER,
U.S. SENATOR FROM NEBRASKA**

Senator FISCHER. Thank you, Chairman Rockefeller and Ranking Member Thune.

And thank you to all the Commissioners for being here today.

If I could follow up, please, Commissioner Rosenworcel, you spoke about the Communications Act, and I believe you said that, in that, it guarantees local contact and local news. Is that part of that?

Ms. ROSENWORCEL. Well, I think that is an important element of authorizing and creating local broadcast channels so that they have a duty under the law to serve their community of license, and that duty includes things like providing local news and local content.

Senator FISCHER. And how are those licenses decided upon?

I live in Nebraska, and I am sure you have heard from some of my constituents in the Sandhills of Nebraska because we are unable to get what we consider local news, which would be Nebraska news. We receive South Dakota news, and we do love South Dakota, Senator Thune, but—

[Laughter.]

Senator FISCHER. And also in the western part of the state—so we keep up with you, by the way.

But in the western part of the state, my constituents there receive Colorado news if they go off the satellite. How do we change that so that we can change those licenses in order to truly receive local news and local content? We can't even get local weather, which I believe is a right that communities should have.

Ms. ROSENWORCEL. I am sympathetic to the situation you just described. At the outset, most of that is a function of Nielsen markets. We have 210 of them in this country, and they chop up and divide the country into different television and media markets in ways that are often rational but not always. We have orphan counties like the ones you are describing that might get their news from another location.

I would point out to you that in the upcoming renewal of the Satellite Television Extension and Localism Act, as a Senator you have an opportunity to speak to this issue. And I would certainly encourage you to do that. I think it is a piece of legislation that gives you an opportunity to talk about this in more detail. And I think you will find that some of your colleagues also have the same situation, where they have orphan counties and they can't get news from their local statehouse or their local weather.

Senator FISCHER. Correct. Thank you. Thank you for you that information.

Commissioner Pai, as you know, rural broadband deployment is one of the engines for economic development in many states, and especially in a state like Nebraska. And I have heard varying reports about the impact of the 2011 transformation order and what that impact is on my rural communities.

You recently stated—maybe this was in another presentation you gave; I didn't read the whole thing, though. But you recently stated that “the changes in the Federal universal service programs have caused unpredictability in funding, and it appears the investment environment has cooled as a result, impeding the deployment of

next-generation technologies and broadband services to rural Americans.”

I share those concerns. What actions do you recommend that the FCC could take to ensure that these areas are going to be served in a predictable and a stable manner?

Mr. PAI. Well, first, I want to commend my more senior colleagues for the effort they put forth in adopting these reforms in 2011. I think as the chairman said, it was not an easy task to reform the rules, which were in need of reform. But I applaud them for having the political will to do it.

With respect to some of the reforms on the high-cost program that you mentioned, I have expressed a number of concerns about the effect of the unpredictability of the rules—so, for example, the quantile regression analysis the Commission has adopted. I have supported some of the more recent reforms that the Commission has adopted to, for example, combine capital expenditures and operating expenditures to make it more understandable for rural carriers where the threshold for a cutoff will be.

But I think there are other ways the Commission could live up to the statutory command of predictability. I have outlined a number of them in the comments that you noted.

But I think, by and large, what we have to do is really listen to the concerns of rural carriers about what their planning process is, because a lot of their investments are not made every 6 months or 1 year or 2 years. These are long-term investments in broadband in rural communities. And so if the Commission is effectively applying the QRA, or benchmarks, every single year, more frequently than these carriers were planning, then it is going to be virtually impossible for them to make informed decisions without getting penalized for it.

Senator FISCHER. Thank you.

Did anyone wish to add to that?

Mr. MCDOWELL. I think it is important to note that this was the first Federal entitlement reform enacted in a generation; that the rate of return—carriers before the reform were receiving \$2 billion a year. After the reform, they are receiving \$2 billion a year. Not each carrier is receiving the same amount; some are receiving less, some are receiving more.

But this was a bipartisan, unanimous vote along a three-to-one party divide. And I think it is notable that we have said all along that it is an iterative process, and, as compelling facts come our way, we can make midcourse corrections. But I think it is important to adhere to the strict budget that we put in place. And I think that is going to be best.

You know, no company we regulate should be guaranteed that it is going to have a certain income level based on a subsidy. And I think that is important for all of us to remember.

Senator FISCHER. Thank you very much.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much, Senator Fischer.
Senator Heller?

**STATEMENT OF HON. DEAN HELLER,
U.S. SENATOR FROM NEVADA**

Senator HELLER. Mr. Chairman, thank you, and to the Ranking Member also, thank you for holding this particular hearing.

I want to thank the panel, also, for taking time, being here today, and answering our questions. But before I ask a question, I would like to touch on a couple of points.

Commissioners McDowell and Pai have been discussing FCC regulations and whether they make sense in today's world. I agree with them that we regulate telecommunications in silos, when the world we live in today is becoming more interconnected each day.

And I also agree with Senator Wicker, believe it or not—actually, we always agree. But we need to have a strong discussion here in this committee, this Senate committee, regarding the 1992 Cable Act and the 1996 Telecommunications Act and whether those laws are promoting or hindering innovation, investments in infrastructure, and broadband adoption.

I also want to mention that I was visited recently by the Nevada broadcasters and our PBS stations. I would like to convey to the Commission their concern regarding the spectrum auction. In Nevada we have over 300 translators and low-power television stations, and I hope you will keep that in mind as you move forward next year in completion of this auction.

But I would like to bring to attention the bipartisan FCC reform measure, a reform measure, the FCC Consolidated Reports Act I introduced last year. The bill identifies 16 reports required of the FCC that could be eliminated, 8 separate reports that could be combined in a single report and produced to the Congress at a specific time. This particular piece of legislation passed with bipartisan support in the House.

Last year, I asked all of you your thoughts on this measure. Four commissioners who answered did not have significant issues at all with this bill. Commissioner McDowell said that Congress and the FCC would benefit.

So to you, Mr. Chairman, I do believe that this is a good government bill. And Commissioners McDowell and Pai both agreed that it would benefit Congress and the FCC. Would you agree with that?

Mr. GENACHOWSKI. Well, I have survived, in part, by not endorsing specific legislation in my time here, but the ideas of reform are something that we are happy to work with you on and the Committee on.

Certainly, consolidating reports is something that we would appreciate. We have been trying to do some of that on our own. So I do think that working with the Committee to continue to reform our processes is a very healthy thing.

Senator HELLER. Commissioner McDowell, do you have any comments?

Mr. MCDOWELL. Absolutely. I think there are some very meritorious ideas in that legislation, as you have heard me say before.

And I also would hope that in the coming months and years this committee would seriously consider the seemingly daunting task of a comprehensive statutory rewrite to erase those silos, to look at all of these services and technologies through the lens of con-

sumers, like my children, who don't care if it comes through twisted copper pair or wireless in one way or a broadcast which is wireless in another way or a coaxial cable or fiber. Let's look at how are consumers potentially benefiting and also harmed and if there are concentrations and abuses of market power.

That is a daunting task, but I think if we all work together, it doesn't have to be partisan, it could be unanimous.

Senator HELLER. Thank you, Commissioner.

Commissioner Pai, thank you for your recent visit. Do you have any comments on this?

Mr. PAI. I do think that the Consolidated Reporting Act would go a long way to streamlining the efforts that the Commission has to expend in order to report back to Congress. I think it would also do Congress a much better service because you would get in one place a comprehensive snapshot of exactly what is going on in the marketplace.

Let me add, as well, that the endeavor to reform our processes from a legislative standpoint shouldn't operate to the exclusion of what we at the Commission can do ourselves to keep the trains running on time. So, in a number of the proposals I put forward, which I don't believe are politically beneficial to anybody but are just a matter of good government, involved setting deadlines, employing more sunset clauses, you know, creating a dashboard where the public can monitor exactly how the Commission is performing with respect to key performance metrics, like the number of petitions for reconsideration that are pending, how long it takes us to issue license renewals, and those kinds of things.

All of which speak to the value of accountability. I think too often what we have heard over the last number of years, not limited to any particular agency in terms of political leadership, is that the Commission doesn't necessarily respond as quickly to the industry as the industry is moving on its own. And so I think that is one of the things—I know my colleagues agree with it. As we move into the 21st century, deeper into the 21st century, we need to make sure that we are acting at the same pace as the private sector.

Senator HELLER. Thank you, Commissioner.

And I am running out of time. Mr. Chairman, I plan on introducing, reintroducing, the FCC Consolidated Reporting Act this year. Certainly hope to get the support of the Committee. Thank you very much.

The CHAIRMAN. Thank you very much, Senator Heller.

And let me just, for the convenience or misery of Members, Senator Warner will be next, Senator Klobuchar, Senator Schatz, Senator Rubio, Senator Cowan, Senator Blumenthal, some guy named Senator Nelson, Senator Begich, and Senator Cruz. So show your love for the Committee.

Senator Warner?

**STATEMENT OF HON. MARK WARNER,
U.S. SENATOR FROM VIRGINIA**

Senator WARNER. Thank you, Mr. Chairman.

And it is great to see all the Commission members here.

You know, one of the things that Senator Wicker and I, and Senator Snowe before that, worked on at some length was trying to

make sure we just have a good inventory of spectrum. And I know the Commission has been generally supportive of this. We have to get our other colleagues in the Federal Government, particularly on the DOD and intel side, to help you get there on that. Because some of the most valuable commodities we have, we don't have good information about how not only private sector but much of the public sector is using the existing spectrum.

Related to that, of course, as spectrum gets more and more valuable—and as somebody who benefited from that increase in value in a prior life—we have to make sure we get as much utilization as possible. I want to talk a little bit about interoperability. And maybe I will start with the Chairman, but any other Commissioner who would like to mention this.

I understand that as we look at all of the new technologies coming on, particularly, obviously, in the wireless space, you know, if you would like to comment on how you are looking at the whole question of receiver standards and whether this is going to be a mandatory system, or now are we looking at potentially a voluntary buy-in.

Because we are continuing to see new opportunities—I think about auto industries and others who want to think about smarter cars as well as smarter phones. Yet there is a constant question here about interference issues, which, obviously, has hit a couple of your other actions in the past.

So, Mr. Chairman, do you want to start on that?

Mr. GENACHOWSKI. Sure. You know, there was a time when people thought that spectrum wasn't scarce anymore and we had all we would ever need and there were no issues. Now, of course, we know that the opposite is the case and we have some real challenges on freeing up more and more spectrum.

Part of what we have learned as we have done it is that, where we have spectrum that is being inefficiently used, sometimes because of restrictions like satellite restrictions, we will see receivers come on the market that get interfered with as we remove unnecessary restrictions. And we have to tackle that. We are running a process at the Commission to determine the best way to do that. I know the Committee is looking at it. But we need to alter the incentive structure so that we don't see that kind of issue.

Senator WARNER. Anyone else want to make a comment on that?

Mr. MCDOWELL. I would actually adopt by reference everything the Chairman just said. And receiver standards are very important. We hope that there could be a private-sector consensus here, so let's push toward that.

It should be part of an overall goal, though, to increase spectral efficiency, because even if we could identify all the 500 megahertz that the National Broadband Plan calls for to bring to auction or to bring to market, that is going to take the better part of a decade to actually get into the hands of consumers. So what do we do in the meantime? We have to adopt policies that promote spectral efficiency in a variety of ways.

But, also, one thing we should avoid with the upcoming incentive auction is making it too complex, too complicated. Having been a veteran of the 700-megahertz auction, my first dissent was cast on the encumbrance on the C Block. That encumbrance, among other

unforeseen circumstances, probably resulted in an interoperability problem which we now face, and it is a Gordian knot that we have to untangle. So let's be very, very careful of trying to make these things too complicated and trying to out-guess the market, because we can't.

Senator WARNER. Anyone else want to make a comment?

Ms. CLYBURN. Speaking of interoperability in general, one thing that comes to mind that I have been talking about a lot is the lower 700 megahertz, where there are issues as it relates to interoperability.

There has been engagement for almost a year. I am still hopeful for a voluntary solution. But the FCC, in its history, has either mandated or encouraged an interoperability across-the-board rule. And urban areas alike benefit from it. And so, where we can, we should either mandate or encourage strongly voluntary engagement.

Senator WARNER. I agree with the voluntary component, although I know in the past it has not always been successful. And, you know, at the end of the day, pushing out new technologies, we are going to need to use all the spectrum we can.

I know my time is running down. I just am concerned, as well—I have a whole series of questions I will submit for the record, Mr. Chairman—but there seems to be a bit of backsliding on USF reform.

And I just believe that this is a knotty problem. This is obviously a change of technologies. But if we are going to get the kind of rural broadband deployment that I think many of us want to see, this is going to have to be a component.

If you want to comment?

Mr. GENACHOWSKI. I just—on that, what I heard you say is that there shouldn't be any backsliding.

Senator WARNER. Yes, that is right. I think that—

Mr. GENACHOWSKI. And I completely agree.

Senator WARNER. My time has gone up. I just want to also echo comments I think some of my other colleagues have made. And I know it opens up an enormous can of worms, but with the marketplace and technology moving so quickly, at some point a broader-based looking at reworking of the whole Telecom Act I think ought to be the subject of this Committee, at least starting down that path. It may not happen overnight, but great, great potential.

So I thank the Chairman and thank the Commission members for being here.

The CHAIRMAN. Thank you, Senator Warner.

Senator Klobuchar?

**STATEMENT OF HON. AMY KLOBUCHAR,
U.S. SENATOR FROM MINNESOTA**

Senator KLOBUCHAR. Thank you very much, Mr. Chairman.

Thank you, Commissioners. Thank you to the Commissioners who came to Minnesota in the last year or so, including the Chairman and Commissioner Rosenworcel as well as Commissioner Clyburn. And you are invited as well, Commissioner McDowell and Commissioner Pai, thank you so much for your work.

I want to start with unlocking. I appreciate the leadership the FCC is taking on this issue. I have introduced the Wireless Consumer Choice Act with Senator Lee and Senator Blumenthal and we are taking this very seriously. We think this is a great opportunity to open this up for competition.

I think you know that there has been a lot of outrage over the recent decision by the Library of Congress—not a common foil for people, but—

[Laughter.]

Senator KLOBUCHAR.—the recent decision that creates uncertainty for consumers who want to unlock their phones from one network to switch to another.

And, again, I see this as an opportunity. And I wondered, I guess, Mr. Chairman, if you would commit to work with us on this bill to address any concerns and to take action. And do you agree that unlocking is an impediment for consumers choosing to switch carriers and, therefore, is a barrier to competition?

Mr. GENACHOWSKI. I do. I think that decision from the Library of Congress raised real competition and innovation concerns. I was happy to see the legislation introduced, and thank you for your leadership.

And it appears to be a bipartisan issue. We need to address it because, right now, there are criminal penalties for someone who gets a new phone and unlocks it. Doesn't make sense.

Senator KLOBUCHAR. No, it doesn't.

Anyone want to add anything more?

Mr. MCDOWELL. I think it is important to get past the headlines a little bit on this issue. And while we need to quickly dispel this image of consumers being hauled off in handcuffs if they try to unlock their cell phone—

Senator KLOBUCHAR. Without their phones, it would have to be.

Mr. MCDOWELL. With or without their phones, exactly—that we also need to understand that we need to protect intellectual property rights. And there is contract law, which your bill speaks to, that can convey and give consumers lots of options and lots of freedom here. So let's make sure we are not undermining intellectual property rights and that we are also preserving the right to contract.

Senator KLOBUCHAR. Yes.

Ms. CLYBURN. I agree with my colleagues. And, also, affordability is a factor, and environmental factors. You know, if you have to make all of these changes every time you—if you have an option to change providers, you know, that is not good for the environment too. So all of those things go into play. And thank you so much for introducing that.

Senator KLOBUCHAR. Yes.

Ms. ROSENWORCEL. I agree. Would be happy to help, whether that is through the FCC or through updating the Digital Millennium Copyright Act. I think the most stunning thing, though, is to find out about the great power of the Librarian of Congress.

[Laughter.]

Senator KLOBUCHAR. Exactly. I thought the same thing.

And, as you reference, Senator Leahy has a bill that I know Senator Lee and I are also on. And I think it is a different approach and we can somehow combine them. We will all work together.

But I do think it is important, Mr. Chairman, for this committee, with its jurisdiction over telecommunications, to be involved in this decision. And that is one of the reasons we introduced the bill this way.

Yes?

Mr. PAI. Well, I would add that contract law, in my view, rather than criminal law or copyright law, I think should govern the relationship between a wireless consumer and the wireless provider.

And so, to that end, I would be more than happy to work with you, whether it is an exemption to the DMCA that allows consumers to unlock their phone or another measure. We stand ready to aid in your legislative mission.

Senator KLOBUCHAR. Thank you very much.

I read good news today. The FCC is taking the issue seriously about call completion, with the consent decree, with Level 3 Communications. Thank you very much.

Could you discuss, Mr. Chairman, what this consent agreement with Level 3 means for the industry? As you know, we have had huge problems with call completion in rural areas in my state and in others.

Mr. GENACHOWSKI. I think it sends a clear message that it is not acceptable, that we will take seriously any instances that we find of failure to complete calls. We will continue to investigate reports, and if it is necessary to have more enforcement actions, that is what we will do.

Senator KLOBUCHAR. OK.

Another question. I understand the FCC has an open proceeding considering the legal and policy consequences of expanding or redefining what a multichannel video programming distributor is, known as a MVPD. What have you found so far? Would altering the definition promote competition and bring prices for video services down for consumers?

We have had some issues come up in some of our suburban areas about the price of cable and also transparency for wireless service disclosure.

Mr. GENACHOWSKI. Well, we haven't reached any decisions in that proceeding. I am, I think we all are, concerned about rising prices to consumers and the need to keep on pushing competition policies in this area.

Senator KLOBUCHAR. Thank you.

And I will follow up more on that so I can let my colleagues go on. But I just will put some questions in the record, Commissioner Rosenworcel especially, on metal theft and copper telecom wires—a growing problem. Senator Graham and I have a bill that Senators Schumer and Hoeven have cosponsored, and I appreciate your interest in that. And we will put some other questions in the record, as well.

Thank you.

The CHAIRMAN. Thank you, Senator Klobuchar.
Senator Rubio?

**STATEMENT OF HON. MARCO RUBIO,
U.S. SENATOR FROM FLORIDA**

Senator RUBIO. Thank you, Mr. Chairman.

First, thank you all for serving on this Commission. It is an exciting time to be there with all these things happening.

I apologize. And I may not use all my time of questioning. I have a 4:30 appointment to unlock my phone.

[Laughter.]

Ms. ROSENWORCEL. Are you going to need a lawyer for that?

Senator RUBIO. At 4:40, I have to go see the Librarian of Congress.

[Laughter.]

Senator RUBIO. Anyway, I will start with Commissioner McDowell because you were so involved in the Internet freedom debate that took place.

Here is my question. I am interested in working on legislation with others that would declare the policy of the United States is to promote a global Internet free from Government control and maintain the current multistakeholder governance.

So I am not asking you to endorse legislation, although feel free to do so, any of you. But I would ask you, do you think that sort of statement from Congress would be something that is helpful in regards to the position of the United States in these international bodies and beyond?

Mr. MCDOWELL. First of all, thank you for your leadership on this issue. And many thanks to every Member of the Senate for unanimously supporting that resolution last year.

And the short answer is, yes, that would be tremendously helpful.

Senator RUBIO. Great. Good.

Did we get that on tape?

[Laughter.]

Mr. MCDOWELL. I am sure. Yes.

Senator RUBIO. All right, I have a second question about spectrum. And the way I would explain this to people back home and across the country when they have asked me about it is, we often hear a lot of conversation about roads and how important roads are to economic development. You have to be able to get your products from entry point to the end-use customer. And spectrum is very similar to that, in my mind. In fact, it is identical to that, on a different level of course. The spectrum capacity is what allows people to quickly get information on tablets or cell phones. It actually would give us a cutting edge.

I have been concerned, of course, about staying on the competitive edge. And we have heard differing reports about where we are in comparison to the rest of the world in terms of our capabilities now and moving forward. And it seems to me—and I may be wrong, and if I am, I want you to point this out—that in the wireless industry, the demand for wireless broadband might outstrip our ability to provide the supply.

So my question is, would it be helpful if Congress authorized multiple spectrum auctions, maybe staggered over a period of time, just to ensure that you have a pipeline of spectrum entering the

marketplace in a steady and predictable manner? Is that something that you all think might be helpful?

Mr. GENACHOWSKI. Senator, I think your thinking about spectrum as infrastructure is exactly right. And one of the challenges that we all face is it is invisible infrastructure, and so it can be hard sometimes to generate the action that we need. It is why this committee's action on incentive auction legislation was so important.

You are right to identify the supply demand issue, I think. The real issue is getting more supply of spectrum to auction. And so the issues that, for example, Senator Ayotte raised about how do we get more spectrum from Government use would be helpful. And I think we can hold an auction anytime, but we need the supply of spectrum in order to auction. And that is something that I would look forward to working with you on together.

Mr. MCDOWELL. Yes, he is absolutely right. So Federal spectrum has got to be a priority, getting the Federal Government to liberate spectrum for private-sector use through exclusive-use licenses rather than sharing.

Ms. CLYBURN. And you, of course, can provide the incentives that might be needed by the Federal holders of spectrum. And I look forward to working with you on that.

Ms. ROSENWORCEL. You are absolutely right. The broadband beneath us and the airwaves all around us are the roads, ports, and canals of the 21st century. The challenge is just as you suggested: making sure we have enough spectrum in the pipeline to meet the demand of that infrastructure.

I think what we are going to have to do, moving ahead, though, is identify ways to make sure that our Federal users of spectrum are rewarded when they use it efficiently. If they use it efficiently, they should see some gain, whether that is through appropriations or budgeting or some other system. And if they use it efficiently, it will return more spectrum for commercial use and we will have more in the pipeline, which will help grow the wireless economy.

Mr. PAI. And, Senator, I agree with her characterization of the problem in terms of more intensive spectrum use. The devices we are using today are, in some cases, 128 times more data-intensive than the simple cell phone was 15 years ago. So there is clearly a need on the consumer side.

In terms of Federal spectrum, one of the processes that is established now under the CSEA, as modified by the legislation last year, involves a notification and auction process. And as I outlined it in my testimony, I won't belabor it here for too long, but that is an established process by which the FCC would notify the NTIA about Federal spectrum that could be repurposed for commercial use.

And if we adopt that process and invoke it in a very robust way, that would be fair and flexible for everybody—for Federal users, for the FCC, and for the private sector. And I hope we use it more often.

Senator RUBIO. Thank you.

The CHAIRMAN. Thank you, Senator.

Senator Blumenthal?

**STATEMENT OF HON. RICHARD BLUMENTHAL,
U.S. SENATOR FROM CONNECTICUT**

Senator BLUMENTHAL. Thank you, Mr. Chairman. Thank you for holding this hearing.

And I want to thank my colleague, Senator Klobuchar, for her leadership, as well, on the unlocking bill, which I have been very glad and proud to cosponsor.

Let me ask just very quickly, the merger, proposed merger, involving T-Mobile and MetroPCS, Chairman Genachowski, has that been approved?

Mr. GENACHOWSKI. It has been approved.

Senator BLUMENTHAL. When?

Mr. GENACHOWSKI. Today.

Senator BLUMENTHAL. So this information was released at what point today?

Mr. GENACHOWSKI. I don't remember the time that it was released.

Senator BLUMENTHAL. But just—

Mr. GENACHOWSKI. Earlier today.

Senator BLUMENTHAL.—hours in advance of this hearing.

Mr. GENACHOWSKI. Yes.

Senator BLUMENTHAL. And let me ask you, was it approved at the Bureau level or the Commission level?

Mr. GENACHOWSKI. The Bureau level.

Senator BLUMENTHAL. And can you tell the Committee, this is a deal involving 40 million subscribers, billions of dollars. Are you aware of any transaction of similar size that has been approved at the Bureau level rather than being circulated for a vote by the Commission?

Mr. GENACHOWSKI. There have been large transactions—

Senator BLUMENTHAL. As large as this one?

Mr. GENACHOWSKI. Same order of—

Senator BLUMENTHAL. My information is that none of this size, in terms of dollars and impact on consumers, has ever been approved by the Bureau as opposed to by the Commission.

Mr. GENACHOWSKI. This may be the largest. The Global Crossing transaction was very large. There was a major radio transaction.

Where there are no petitions to deny, no issues of Commission policy, these are typically done at the Bureau level. And this was consistent with the precedent in the area.

Senator BLUMENTHAL. I don't want to take time on this issue now, but I will have follow-up questions for the record.

Mr. GENACHOWSKI. Of course.

Senator BLUMENTHAL. Second area. I noticed that today AT&T has announced a rate hike—I am sure you are aware of it—on its DSL service. This comes just one week after Verizon announced an almost-identical rate increase. Both of them trouble me. Price increases sometimes are a fact of life, but when we see increases in the market as important as this one, not only in its impact on consumers but also our economy in general, I think we ought to pay closer attention.

Let me ask about the FCC's efforts to monitor prices in the marketplace. As you know, the National Broadband Plan recommended that the FCC collect and monitor prices and make that data pub-

licly available so consumers could make more informed decisions, have better choices.

I know the Commission has an open rulemaking on that issue, and I wonder if you could tell this committee what the status is of implementing this recommendation. And do you believe that the FCC needs such data to better meet your statutory responsibilities? And—well, let me invite you to answer that question first.

Mr. GENACHOWSKI. Sure. As the broadband plan pointed out, that would be very helpful data. What is underlying your question is something that is very important, which is the need for competition to drive lower prices, better products, more private investment. And I completely agree with you, and it is something that we have worked very hard on.

In the mobile space, we have seen much better trends in mobile competition over the last couple years than we had seen before. But there is, of course, much more work to do.

Senator BLUMENTHAL. Are you troubled, as well, by these rate increases?

Mr. GENACHOWSKI. I am troubled in general by rate increases that aren't based on competitive factors. These aren't something that we have studied specifically yet, but it is certainly something that we can look at together with you.

Senator BLUMENTHAL. I would appreciate that. And I will follow up on that area as well.

Finally, because my time is limited: blackouts, sports blackouts. Grave concern, deeply troubling, especially to many in Connecticut when they see that their favorite football team on Sunday or their favorite baseball team or their college sports team has been blacked out in their area.

The Commission, as you know, put out a notice of inquiry but hasn't yet moved to a Notice of Proposed Rulemaking. I wrote to the FCC back in 2011 to ask that you open this proceeding to discuss whether the nearly 40-year-old sports blackout rule—I think it is 40 years old—is still relevant in today's environment. And I wonder if you could give me an update, a status report, on where you are on this issue which is profoundly important to people in Connecticut but I think across the Nation.

Mr. GENACHOWSKI. Sure. And blackouts are of tremendous concern to consumers. We certainly hear from them, as you do.

An area where it comes up too often is in the retransmission consent area. This is an area where we have had discussions with the Committee in the past, and look forward to continuing it because it may be time to update those provisions to reduce the chances of blackouts during retransmission consent negotiations.

Senator BLUMENTHAL. Are you planning to move to a rulemaking proceeding?

Mr. GENACHOWSKI. As we said at the time, our authority under the existing statute is limited. And this may be an area that we have to work with the Committee to address the blackout issue.

Senator BLUMENTHAL. Well, my time has expired. I thank the Chairman for his indulgence. I would like to follow up on this area, as well, and get some more specific and detailed answers.

And I want to thank you and all the Commissioners for your very diligent work. Thank you.

The CHAIRMAN. Senator Blumenthal, you only exceeded your time by 31 seconds, so I wouldn't get too worried about it. Plus the fact that your questioning is always excellent.

Senator BLUMENTHAL. Thank you.

The CHAIRMAN. Senator Nelson?

**STATEMENT OF HON. BILL NELSON,
U.S. SENATOR FROM FLORIDA**

Senator NELSON. Thank you, Mr. Chairman.

I believe that disclosure is one of the strongest things that can happen in the public sphere. And two decades ago, the Federal Communications Act had this provision: Section 317, requiring the on-air identification of sponsors of all advertisements, political and commercial. And then when the FCC wrote the regulation, they said that political ads must, "fully and fairly disclose the true identity of the person or persons or corporation, committee, association, or other unincorporated group or entity," that pays for them.

Well, as you know, as the result of a Supreme Court decision, we have been beset upon in the political sphere with an avalanche of undisclosed, unlimited money from sources that the public does not know where the political communication either arguing for or against a particular candidate comes from.

Indeed, in the Citizens United Supreme Court decision that set off this crazy contortion of campaign finance law, there was an interesting statement by the Court, joined by eight of nine justices, that says, "Disclosure is the less restrictive alternative to more comprehensive speech regulations." That would indicate that the Court is looking approvingly of disclosure.

OK. You have the statutory power. We don't have to do what we failed by one vote, with 59 votes, and we didn't get 60 votes, four years ago to have the DISCLOSE Act. You have the power.

So I would like to know what each one of you thinks about implementing the statutory authority that you have for all of that undisclosed money that is hiding behind the Committee for God, Mother, and Country" and yet is fueled by various special interests.

Mr. GENACHOWSKI. So, Senator, thank you. It is a very important issue, and I agree with you that disclosure is a First Amendment-friendly, powerful tool in this space.

Last year—and this was a contentious decision—we approved new rules that required broadcasters to put online the information that they now receive about political ads. And they do receive a significant amount of information. By a 3–2 vote, we adopted those rules. And that started rolling out before the last election, and it will continue.

And part of what I think we are obliged to do now is look at the effect of that as it rolls out, consider the kinds of issues that you are raising, and determine what, if any, next steps are appropriate and necessary.

Senator NELSON. Well, the statute passed two years ago requires on-air identification of all sponsors of all advertisements. And then the FCC rule that implemented the statute says, quote, "fully and fairly disclose the true identity of the person"—talking about political ads—or persons or corporation, committee, association, or other unincorporated group or other entity."

So does that mean that you are a “no” vote?

Mr. GENACHOWSKI. No, Senator, I think there are requirements that are in place on disclosing, including on air, the sponsors of ads. I think you are suggesting that we look at going more deeply into who the actual funders are. I think that is a very important issue and something that we should look at.

Senator NELSON. I am talking about the enforcement of the FCC’s rules that fleshed out the statute that was passed.

Would you indulge me, Mr. Chairman, to just see what the rest of the Commissioners say?

Mr. MCDOWELL. Thank you, Senator, for the opportunity to comment on this. And you are absolutely right; disclosure and transparency are good and curative in many, many contexts.

And as the Chairman pointed out, about a year ago, we had a vote—actually, there were only three of us at the time at the Commission. There was a 3–0 vote in part and a 2–1 vote in the other part. I dissented against the disclosure of broadcast rates, how much it cost, because I am concerned about collusion.

So we want to encourage transparency. At the same time, we need to balance that against what is the right forum. Should that be the Federal Election Commission or the Federal Communications Commission? Should broadcasters end up being the enforcers of political campaigns and these other groups that are formed? Do we put the burden only on them?

So I think there are a lot of equities to balance here, as well. There are a lot of groups that get formed in the context of elections and public issues ads. So where should all the burden go? The money flows to new media, it flows to old media, it flows to a lot of different places in old media and not just broadcast licensees. So we need to be careful to balance.

Senator NELSON. There is no balance here. It says “requires on-air identification” of the sponsors of advertisements. So does that mean you are a “no”?

Mr. MCDOWELL. Well, and there are already both FEC rules and FCC rules regarding these sorts of things. So, you know, all the mouse print and the quick, fast talking at the end of ads covers a lot of that.

Senator NELSON. We just came through more than a billion dollars, probably \$2 billion to \$3 billion, of outside ads from these undisclosed sources. So this is not an issue in front of the public. It is here, it is right now.

What about you, Ms. Clyburn?

Ms. CLYBURN. Senator, I will look forward to working with you if there is anything that we have or have not done or that you identify as deficient.

We moved a long way in moving the information that stations were previously keeping on premises to the airwaves. It made the opportunity for investigative work and the like more clear. Again, if there is anything that we left out, if there is any “i” not dotted, I look forward to further engagement with you.

Senator NELSON. So that is a “maybe.”

How about you, Ms. Rosenworcel?

Ms. ROSENWORCEL. I will make it easy. Yes. I agree with you. Sunlight is the best disinfectant. And we should look at our rules,

make sure they are updated under Section 317, and make sure that the filings that we receive are as transparent as they need to be.

Senator NELSON. Mr. Pai?

Mr. PAI. Thanks, Senator. I share my colleague's value of openness and transparency in all phases of our work.

One of the issues, I think, that we are confronting is that Section 73.12(12) of our rules, which implements Section 317 of the Act, requires the disclosure of persons, committees, corporations, or other entities that are sponsoring the advertisement. So there is a question under our current rules whether that requires the disclosure of all the sponsors who are underlying the actual sponsors. And so there are also some practical considerations, as Commission McDowell pointed out, in a 30-second television ad. Would you have to identify every single sponsor of, you know, who is funding the corporation or the outside committee?

One of the other things I would like to bring to your attention is this September 2012 GAO report which studied this issue in some depth. And it pointed out that, regardless of what Congress does with respect to the law and what we do with respect to our rules, it wouldn't hurt for us to update some of our FCC guidance to broadcasters. Some of that guidance hasn't been updated since 1963, and it still talks about the fact that, you know, the expensive kinescope print that you use to produce a film might warrant sponsorship identification.

And so I think there are things that we could do internally to provide greater clarity for the industry.

Senator NELSON. That sounds like a "maybe, yes."

[Laughter.]

Senator NELSON. In which case, need one more vote.

[Laughter.]

Senator NELSON. I need three votes.

Now, this is of great consequence to the political sphere, of how it was influenced by undisclosed, unlimited money.

Thank you, Mr. Chairman.

The CHAIRMAN. Would the Senator yield to a question?

Senator NELSON. To my Chairman, of course.

The CHAIRMAN. It is a fascinating question, and it goes to the very root of the integrity of democracy. And there were two fairly—one very clear, one fairly clear "yes," and then there was sort of a "yes, maybe," and then there was a—you know.

There is no complexity to this question. There is no way, cerebrally, to avoid answering his question. To say that the FTC could do it or somebody else could do it, that is not what he is asking. He said, you have the power to do it, and he is asking, will you do it. I don't think it is unfair for him to insist.

And you have my permission, if Senator Cruz doesn't kill me, and Senator Cantwell, Senator Begich—well, they will kill me. I think he should press his point.

Mr. GENACHOWSKI. Well, I would be happy to add to that.

We took a major step last year in increasing transparency around political ads and making the information available to consumers. It was a very significant—

Senator NELSON. You might have done that, and I commend you for that. But it didn't affect the outcome.

Here is the outcome. It is disclosure. Once all of those entities have to put their mouth where their money is, it is too embarrassing for some of them. Now, some of them, of course, it was obvious; they made no bones about it. But when you hide behind that "Committee of the Flag, Mother, and Country" and in the name of that entity all of the contributions are made, you are violating the statute and the rule that you all implemented to flesh out the statute.

Thank you.

The CHAIRMAN. Thank you, Senator Nelson.

Senator Begich? Thank you for your patience.

**STATEMENT OF HON. MARK BEGICH,
U.S. SENATOR FROM ALASKA**

Senator BEGICH. No, I am happy. That was a very interesting debate, and it would be interesting at some point to further that discussion.

But let me—as many of you know, I always start—and, first, I want to say thank you for all the work you have done in regards to some of the adjustments you have done and the work you have done in regards to Alaska. But always being parochial and always caring about my state, I want to lay a data point, and then I have a couple questions, Mr. Chairman, if I can direct them your way, and others may want to respond.

A new study came out, I think it is called "The Brattle Group," a pretty respected group, found that 60 percent, 60 percent of Alaska has wholly inadequate telecommunications. Sixteen thousand census blocks in Alaska have no wireline broadband service or no wireless service whatsoever. Another 4,300 census blocks have no wireless service at all.

To get just to 3G—forget 4G, I know that is the goal—just to get to 3G in Alaska is a quarter of a billion dollars of investment. So we have significant investments needs.

And, now, Mr. Chairman, I am going to ask you a couple of questions in regards to two recent ones. I know you just finished, I think it was Order 6. And one of the issues that, I think it was in Order 6, that came out—and let me just kind of state it here.

You have done some positive impacts, again, for Alaska, but it is clear and it appears there is an error in the regression analysis. The first that comes to mind is the designation of tribal lands. The FCC itself, in previous dockets considering Lifeline and Link Up services, recognized Alaska as designated 100 percent tribal lands. We are not like any other state, we don't have reservations. And so, in 2012, July, the wireline bureau conceded that not treating Alaska as 100 percent tribal lands was an error and that it should be corrected. To date, that correction has not happened.

What is more disturbing is the most recent arbitrary designations. I mean, the North Slope, 23 percent tribal. Well, where do you come up with the data to back that up? Because being born and raised, I am going to tell you—and I know Commissioner Pai is going up to North Slope.

And they are going to be anxious to talk to you about what tribal land is. And I will come to you because you had some commentary which I appreciated.

I don't know how you come up with these designations. And I am anxious, one, how you came up with it. And then I want to see the data. Because I am going to tell you, I will be surprised if the FCC understands—no disrespect to all of you and your staff—what tribal lands are. And 23 percent of the North Slope Borough, as one example, is not tribal land. The whole area is tribal land.

And, obviously, to be very frank, I am a little agitated because it has offended many of my constituents in Alaska, how an agency can determine what tribal land is when you already have one of the bureaus saying they made an error, should be 100 percent.

So, Mr. Chairman, how do you respond to that?

And then I want to get the data, and I hope it comes from somewhere, wherever that somewhere is.

Mr. GENACHOWSKI. Senator, first of all, thank you for the positive remarks on our overall reform efforts. You and I have spent much time talking about this over the last few years, including in—

Senator BEGICH. And in Alaska.

Mr. GENACHOWSKI. In Alaska, although not in the North Slope.

Senator BEGICH. No.

Mr. GENACHOWSKI. And, certainly, I recognize, we all recognize, the staff recognizes that there are elements of Alaska that are unique and that we have to take into account in our rules and that the tribal issues in Alaska are complex and very important.

On the specific question that you are asking, if I may, I would like to follow up with you on that. Because the particular—

Senator BEGICH. I would appreciate that.

Mr. GENACHOWSKI.—North Slope tribal issue is not something that I am—

Senator BEGICH. That is just one.

Mr. GENACHOWSKI.—familiar with.

Senator BEGICH. It is around Alaska. Many different areas have different percentage designations. And I would like to know where the data came from to determine that.

Mr. GENACHOWSKI. We will provide that data to you and work with you on this.

Senator BEGICH. And did I see another—yes?

Mr. MCDOWELL. Senator, first of all, thank you for raising this issue. As you know, if it weren't for Senator Ted Stevens, I would not be here, and I am eternally grateful for that.

Senator BEGICH. And he probably ingrained in your mind about tribal issues 100 percent.

Mr. MCDOWELL. It is. And I have always fought for—

Senator BEGICH. I am just here to help remind you of that fact.

Mr. MCDOWELL.—tribal lands. We always fight for inserting Alaska native lands if it is not in our language already. So it has been a priority of mine since my very first trip as a commissioner was to Alaska in August of 2006. I have been to the North Slope in winter when it was a balmy 55 degrees below zero in Barrow and—

Senator BEGICH. Extra credit.

Mr. MCDOWELL.—Deadhorse. So I want to work with you on this issue to help correct it if we need to.

Senator BEGICH. Very good.

Ms. CLYBURN. And, Senator, as you know, I came to Alaska in the dead of summer, and—

[Laughter.]

Ms. CLYBURN. And I am unapologetic for that.

[Laughter.]

Ms. CLYBURN. But I want to assure you—and we have talked several times—that we run a data-driven process. And all data and methods, in terms of the regression analysis and any other analysis that we have come up with, are open to you.

So, again, I would invite you to come down to the office or we can come to you. It might be easier for you to come down to the office on some of this. And if there are any remaining questions which obviously—

Senator BEGICH. We will make it happen.

Ms. CLYBURN. All right.

Senator BEGICH. My time has about run out, and I still have one important question.

Ms. ROSENWORCEL. Well, you know, Senator, I have been to Alaska, I have been up there with you. And I think there are two points here. First of all, when you have a regression model, it is only as good as the data you put into it.

Senator BEGICH. Yes.

Ms. ROSENWORCEL. And the second point is Alaska is big and vast, and it is possible that it does not fit into the model that we use for the lower 48 states.

Senator BEGICH. Very good. Let me end you there.

Mr. Pai, don't worry, I have a question for you.

Mr. Chairman, if I could just take 2 seconds to kind of go through.

One other one was a letter that was sent to the Alaska delegation, dated August 2012, Mr. Chairman. Adopted a variable that specifically accounts for provision of services in Alaska. That variable, adopted by the Commission for construction in Alaska, is a negative coefficient. In other words, the data actually says—which doesn't make—I am trying to hold myself here for a second—that it is 46 percent lower to construct in Alaska than the lower 48. That is impossible, based on my experience.

And so, you know, when is that—as you said, data going in, creates something that doesn't work. I mean, San Juan actually get a 679 percent higher cost of constructing, San Juan, than Alaska, when we have less than 4 months in some of our areas of construction season, when San Juan may be a little warmer, 12 months.

So how do we explain that? And can you get me data to explain this, or fix this problem that doesn't make any sense?

Mr. GENACHOWSKI. Yes, I think there may be a misunderstanding there. Our staff recognizes the cost and expense of building out in Alaska. So we will pursue that with you and your staff, and I would look forward to that.

Senator BEGICH. Very good.

Let me end and just say, Commissioner Pai, thank you.

Given the new data that I showed and some of your commentary—I did not read the nine-page speech, but I got good commentary on it—let me ask you, do you agree that it makes no sense or that there should be clear review of additional reductions in the USF fund, especially in Alaska, based on this data that I just laid out on the 60 percent accessibility issue?

Mr. PAI. Well, Senator, first, I want to thank you—

Senator BEGICH. I am tagging you because you had a little different view on the last order.

Mr. PAI. Yes. Thank you for the question. And I want to express my appreciation for our productive exchanges, both in public and in private, on these issues. I know it is important to you, and it is important to me and my colleagues, as well.

I think one of the issues that we are confronting, and you encapsulated it in your question, which had to use the words “negative coefficient” and things like that, an elegant model, even one that in the abstract is mathematically sound, can often run aground on the shores of Alaska. And so, from Barrow to Adak, from, you know, Kotzebue to Cordova, there are a number of unique challenges that the state faces that aren’t adequately captured in the model.

So, you know, there are two solutions to that. One is, you know, to stay with things the way they are. The other is to make the necessary changes to the model, either by tweaking the variables or putting in better data.

As you know, I have expressed to you before, I stand with you in terms of my willingness to get it right and make sure that we do what we can to, you know, provide predictability and adapt to the conditions of Alaska.

Senator BEGICH. Thank you. Look forward to seeing you in June.

Mr. PAI. June, July, August, yes, we will look forward to that, too.

Senator BEGICH. Very good. Thank you.

Mr. Chairman, thank you.

The CHAIRMAN. Thank you, Senator Begich.

The most patient Senator Cruz.

**STATEMENT OF HON. TED CRUZ,
U.S. SENATOR FROM TEXAS**

Senator CRUZ. Thank you, Mr. Chairman.

I want to begin by thanking the Chairman, thanking each of the Commissioners for your service, for being here, for your extended testimony today. I appreciate your being here.

I would like to ask a couple of questions about spectrum policy, but I would like to begin with just a word of caution about the recent exchange with Senator Nelson.

The FCC has a long tradition of being nonpartisan. And, as each of you know, the DISCLOSE Act is a subject of deep, deep division within the U.S. Congress. And many are concerned that the DISCLOSE Act, if passed, would have a profoundly partisan impact and would raise grave First Amendment issues.

And so the word of caution I would raise is, were the Commission to endeavor through rulemaking to end-run Congress and adopt a rule that would be perceived as overtly partisan, I would caution

that doing so could well undermine the integrity of the Commission and imperil the independence of the Commission.

So I give you that word of caution. You have an important statutory mission. And my counsel, at least, would be to leave the political disputes to the members of this body, who are elected to decide them. And I don't require an answer to that. That is simply a word of caution.

I want to turn to questions on spectrum now. I have seen estimates that the Federal Government owns or controls roughly 85 percent of spectrum that is suitable for wireless broadband. And the question I would ask the chairman and each of you is twofold.

Number one, for those estimates, are those consistent with your understanding? And, in your learned judgment, is it appropriate for the Federal Government to control such an overwhelming majority of the spectrum that is suitable for broadband, and for the public, the private sector, to be allocated only 15 percent?

Mr. GENACHOWSKI. So it is an important question, Senator Cruz, and others on the Committee have asked it, as well, which I think is a good thing, because we do need to take this issue seriously. I have seen the number 60 percent, maybe measuring different spectrum. But either way, when you compare the usage needs to the amount of spectrum that the Federal Government has, it doesn't make sense long-term, given the very powerful demands for commercial spectrum.

And so working together on this is absolutely essential. We need to clear and reallocate much more Federal spectrum. And I believe we also need to look at creative sharing ideas and pursue both tracks.

Senator CRUZ. Does anyone disagree with that assessment?

Mr. MCDOWELL. I don't disagree. Actually, the number could be 60 percent, it could be 85 percent, it could be more, depending on what you determine is the best spectrum. And technological innovation is actually expanding that. You know, there was junk spectrum years ago which is now prime spectrum.

But the Federal Government can and must do more to relinquish spectrum for auction for exclusive-use licenses.

Senator CRUZ. Let me ask, then, a follow up question. Are any of you aware of any reliable assessment of the value of all of the spectrum that is controlled by the government? And, if not, can you imagine any sensible process for valuing it and assessing just how significant of an asset is this spectrum that is in the control of the Federal Government?

Mr. GENACHOWSKI. Well, the idea of an audit of Federal spectrum, it has come up earlier in the hearing. It is important, and I agree with my colleagues that it should be done. That should not hold up steps we can take in the near term to free up spectrum where we know there is inefficient use and we can get it on the market.

Mr. MCDOWELL. The value could be untold, really, if you look at 400 megahertz to maybe 3 gigahertz, and that is the 85 percent data point you are looking at. You know, based on the \$2.70-per-megahertz POP, which is how we value spectrum, that came out of the 700 megahertz auction, if all of that could be used in an unencumbered way at its maximum value, I can't do the math.

That is a lot of zeroes after a number, but it is in the tens, if not hundreds, of billions.

Ms. ROSENWORCEL. Yes, the value of Federal spectrum holdings is really, really big. Too many zeroes to count. But I think what we need to do—

Senator CRUZ. This is a body that we—we generate a lot of zeroes.

Ms. ROSENWORCEL. You operate in those numbers.

Senator CRUZ. Far too many.

Ms. ROSENWORCEL. Yes, I know. I know.

[Laughter.]

Ms. ROSENWORCEL. What we need to do right now, though, is we need to find ways to give incentives to the Federal Government to be more efficient with its spectrum. We need to make sure that when we knock on the Federal Government's door and ask for more spectrum for commercial broadband use, they don't just see loss from its reallocation, they see the possibility of gain. And I think valuing it is the first step in identifying how to do that.

Senator CRUZ. And if I may ask, with the Chairman's indulgence, one final follow-up question, which is, in your judgment, what would be the best process for assessing the macro question of determining the appropriate level of control and/or ownership of spectrum by the Federal Government and the value of that, and what is the appropriate level of control and/or ownership by the private sector?

Mr. GENACHOWSKI. I will answer very briefly. I do think that audit would be the best process. As Commissioner McDowell points out, we can value spectrum on a megahertz POP basis, and so I would encourage that path.

Mr. MCDOWELL. The audit plus, borrowing a concept from zero-based budgeting, which is the Federal Government should justify use of its spectrum in a transparent way, as transparent as the Federal Government can be.

Senator CRUZ. Thank you very much.

The CHAIRMAN. Thank you very much, Senator.

Senator Cantwell?

**STATEMENT OF HON. MARIA CANTWELL,
U.S. SENATOR FROM WASHINGTON**

Senator CANTWELL. Thank you, Mr. Chairman, and thank you for holding this hearing. I know it has been a long afternoon already, but I certainly appreciate the opportunity to address the Commission.

And, you know, I think the last oversight hearing we talked about media ownership rules, and I more or less know where we are. You are looking at a study, at this point in time, to give you more feedback on the proposed rules. It seems as if you are going to pursue what your Republican predecessor did with urging more media consolidation, obviously something I don't support, your proposed rule. So I am not going to spend a lot of time on that today, other than to just say we will certainly pursue a resolution of disapproval if that is where you end up.

But I just wanted to point that out. It is not that I don't want to ask a lot of questions about it. I just know you are at this stage where you are getting more input from a study.

I do want to ask about unlicensed spectrum, though. And I guess, first, I just want to start with a basic concept or question to you, the Chair, but I guess to anybody else who wants to jump in there.

Do you agree or disagree that the spectrum crunch that we hear about also applies to the unlicensed spectrum? We spend a lot of time on the licensed spectrum, but I want to make sure everybody gets the demand and the crunch on the unlicensed. Do people think that is a real issue?

Mr. GENACHOWSKI. I completely agree. We feel that when we are at conferences or airports and we are using unlicensed spectrum, which is what Wi-Fi is built on, and we see and feel the congestion. This is more likely to get worse than better, as more and more video and high-bandwidth uses travel over unlicensed and Wi-Fi.

So I agree with you, we need to free up more spectrum for Wi-Fi. We proposed another 200 megahertz recently. And then I also think we need to pursue a new generation of unlicensed, which we can do as part of the incentive auction process.

Senator CANTWELL. And do you agree or disagree that obviously there are different propagation characteristics of these different megahertz? So, like, at 600 megahertz or 900 or 2.4, 3.5 gigahertz, 5, there are different—enables certain things and precludes others? So it is not—

Mr. GENACHOWSKI. Agree.

Senator CANTWELL. OK. Good.

And that obviously it is very important for innovators to have access to unlicensed spectrum at different frequencies, including below 1 gigahertz.

Mr. GENACHOWSKI. I agree. And it is both the frequencies, and it is also the power at which they are permitted to transmit. There is some Wi-Fi frequency available at lower frequencies, but it is power-limited. And so this next generation of unlicensed, which can be both lower frequencies but also higher power levels, can make a big difference and create new innovation markets.

Senator CANTWELL. And so how do you see us resolving these issues, or how do we get the attention to these issues so that we can have this clarity for—

Mr. GENACHOWSKI. Well, this is in front of the Commission, it was in front of Congress in connection with the incentive auction law. And there was a direction given to the Commission with respect to guard bands and looking at unlicensed in those guard bands. I think that was a good outcome on a bipartisan basis from Congress, and that is under active consideration now at the Commission.

Senator CANTWELL. Yes, go ahead.

Mr. MCDOWELL. Senator, as you know, I have been a long time proponent of unlicensed use of the TV white spaces, which is a concept of at least 11 years old. We do need to move forward with the incentive auction proceeding, but I want to make sure we do not reserve a large block that is nationwide for unlicensed use. I think that would undermine funds for the public safety initiative that Senator Rockefeller was talking about.

But we can still have robust unlicensed use below 1 gigahertz, just as we are looking at above 5 gigahertz. But we need to be very careful to not artificially create something that lends itself better to auctioning for licensed purposes than unlicensed purposes.

Senator CANTWELL. That kind of brings up the Progeny waiver. So is that something the full commission is going to look at?

Mr. GENACHOWSKI. I presume so, although that is something I would like to get back to you on. But I presume that is a commission issue.

Senator CANTWELL. And why would it not be?

Mr. GENACHOWSKI. Only if it fits into the category of not presenting any significant commission policy decisions. But I presume it would be.

Senator CANTWELL. Well, I guess it goes—yes, go ahead.

Mr. MCDOWELL. I would hope it would be.

Senator CANTWELL. Pardon?

Mr. MCDOWELL. I would hope that it would be something all five of us could consider.

Senator CANTWELL. I guess that is my point, is to shove some of these things that are already causing challenges in this space. You know, I would hope that we were going to have a broader discussion about it instead of, you know, having some of these waivers given and then having preclusions, basically, or conflicts, like on the E-911, when we need to have a broad discussion about how we are going to have this unlicensed spectrum really be a very robust space for all these applications.

So thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Cantwell.

I should just point out that, as it turns out, on next Tuesday at 2:30 p.m. we are going to have a classified briefing for Commerce Committee members on the Federal Government's use of spectrum. And that notice is being sent to offices today.

I could go on to violence, but you know what I would say and I know what you would answer. I would just hope that you could take what you did in 2007 and then also in 2009 and kind of move them forward. I mean, we have to do the heavy lifting on it to give you capacity in violence. I have never quite understood that. And it has sort of a bad reaction on this committee, which I have never quite understood either. But be that as it may, you do your work, and I will try to do mine.

And I want to thank you, particularly, Mr. Chairman, for inconveniencing yourself. This was not according to your schedule, and you had to make a change. The rest of us did not, I don't think. And, therefore, I thank you very much for that.

These hearings are interesting in that they wander a bit from time to time, can come up with interesting and important subjects. I thought Senator Nelson's thing was very, very important. I had no idea of what you all had written about that.

But people are interested. They do know the world is changing, and they do want to know the right things. We have some ideological differences, not necessarily with me but with some others, but I think those can be overcome, and I think we can do good work.

In any event, thank you all for what you do. It is complex beyond definition.

And the hearing is adjourned.
Mr. GENACHOWSKI. Thank you.
[Whereupon, at 5:11 p.m., the hearing was adjourned.]

A P P E N D I X

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN D. ROCKEFELLER IV
TO HON. JULIUS GENACHOWSKI

Question 1. As you know, I have long been concerned about the harm caused to kids by violent programming. That is why I have introduced legislation to have the National Academy of Sciences study the impact of violent programming on children's well-being.

I also have long believed that parents must have effective tools to protect their children from questionable content, no matter how it is accessed. I know the FCC previously studied this issue in 2007 and 2009, discovering significant flaws in TV ratings systems and parental controls.

Technology has changed dramatically since your original studies. Today's mobile devices and online video platforms offer children access to untold amounts of content and create additional challenges to parental oversight.

Would you commit to updating the FCC's 2007 and 2009 reports on media violence and parental control tools, particularly examining the impact of changes in technology on parents' ability to protect their children from questionable content?

Answer. As you noted, in 2007, the Commission released a report at the request of the House Energy and Commerce Committee that studied the impact of excessively violent programming on children, the advisability of government regulation of such programming, and the legal issues raised by such potential regulation.

That report stated that research provides strong evidence that exposure to violence in the media can cause aggressive behavior in children, at least in the short term. It also concluded that Congress could develop an appropriate definition of such programming, but that such a definition would have to be narrowly tailored and in conformity with judicial precedent to withstand constitutional review.

In August 2009, pursuant to the Child Safe Viewing Act of 2007, the Commission issued a Report to Congress in which it assessed the state of the marketplace with respect to the existence and availability of advanced blocking technologies, methods of encouraging the development, deployment, and use of such technologies. The Report also assessed the existence, availability, and use of parental empowerment tools and initiatives already in the market.

In October 2009, as a follow-up to the CSVA Report, the Commission issued a Notice of Inquiry seeking comment on how to help parents and children take advantage of the opportunities made possible by electronic media technologies while protecting children from the potential risks posed by these technologies. This "Empowering Parents" proceeding remains open.

Given the technological changes to which you refer, a reasonable first step would be for the Commission to update the record to collect data on the most current technologies available to best empower parents to protect their children from objectionable programming.

Question 2. On March 1, I sent letters to the four national wireless providers to express my concerns about the growing evidence of wireless cramming. As I have expressed in the past, it is important for both the FCC and Congress to be proactive in this area. As last year's investigation in this Committee found, wireline cramming costs consumers and businesses billions, and we have to apply the lessons learned from that experience to stop wireless cramming. As we continue to move to a more wireless world, we must remain vigilant. What should the agency be doing to make sure cramming doesn't move to other services, such as wireless? Has the agency seen evidence of an increase in wireless cramming complaints in the past year?

Answer. A pending Notice of Proposed Rulemaking seeks to obtain information on the scope of wireless cramming complaints. Commission staff is reviewing the record developed in that proceeding and the data we are receiving from complaints, as well as the trends in the number of wireless cramming complaints we are receiving.

On April 18, the Commission held a Public Workshop with industry experts as well as consumer and state representatives, to help educate consumers to protect themselves from both Bill Shock and Cramming. We plan to utilize the information obtained in the pending item and at the workshops to formulate potential next steps.

Question 3. Prior to the FCC's adoption of last year's reforms to the universal service high-cost fund, I discussed with you and your colleagues the importance of making sure that those reforms help bring wireless service to rural areas that do not have it now. We also discussed how mountainous terrain and other topographical features can pose additional challenges and costs to wireless deployment in those areas.

The Commission recently completed its Mobility Fund "Phase One" auction to provide support for wireless build-out in rural America. It is my understanding that some prospective bidders faced significant challenges in winning support under the Mobility Fund's Phase One rules.

I know that the FCC is still considering reforms to the method by which it distributes wireless support in the future. Will you commit to a thorough review of this method to be sure that it works effectively for all rural areas, including those areas, like West Virginia, that face topographical challenges?

Answer. It is critical that we extend the benefits of mobile communications to rural areas, including those in West Virginia.

Phase I used a competitive bidding process in areas where it would be cost effective to develop with a one-time investment. A total 894 bids were submitted, and \$300 million awarded to extend service to up to 83,000 road miles.

We are conducting a thorough review of this auction to identify successes and areas for improvement. Following the auction, we solicited further comment on lessons learned, and have been carefully reviewing the comments received.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BARBARA BOXER TO
HON. JULIUS GENACHOWSKI

Question 1. For years, rural telephone consumers have been reporting to the FCC that they frequently experience dropped calls and poor call quality. Last month, the Commission released a Notice of Proposed Rulemaking (NPRM) proposing data collection to better identify the source of rural call completion problems. That was a good first step and one that is long overdue. Will the data the Commission receives as a result of the NPRM be shared with States so that they may better address intrastate call termination problems?

Answer. The NPRM sought comment on whether the data the Commission proposed to collect should be treated as confidential or be open to public inspection. We will be reviewing the record carefully on this issue. In addition, in other contexts we have shared even non-public data with state officials subject to protections, and will consider that option here as well. We have encouraged our state partners to participate in the proceeding, and we look forward to working with them to address rural call completion problems.

Question 2. Can we expect the FCC, in the near future, to undertake additional enforcement actions like today's consent decree with Level 3 Communications?

Answer. Resolving rural call completion issues is a major priority for the FCC. We are aggressively pursuing this problem and there will be significant consequences for those companies that are not fulfilling their obligations to rural America.

Question 3. The E-Rate program, which has furthered the goal of bringing broadband Internet access to classrooms and libraries all over the country, is severely underfunded. Last year alone, it had to turn away more than \$2 billion in applications from schools and libraries nationwide, including many in California. Experts project that demand for E-Rate support will continue to grow, particularly as wireless devices proliferate in the classroom. Yet, the E-Rate cap, which was set 15 years ago by the FCC, only increases by one percent each year and may not be able to support the future bandwidth needs of our schools and libraries. What is the Commission's plan for addressing the E-Rate funding shortfall and ensuring that schools and libraries can obtain affordable, high-speed broadband?

Answer. The E-Rate program has achieved remarkable success—97 percent of American schools and nearly all public libraries now have basic Internet access.

We are at a moment of great opportunity for digital learning. Broadband and digital tools have game-changing potential for education. Our significant E-Rate re-

forms in 2010 were a strong start to lower costs and expand broadband access to schools and libraries.

As with all our universal service programs, it is critical that we regularly review E-Rate to ensure it is keeping pace with needs, operating efficiently and targeting support effectively.

Question 4. As you know, under the E-Rate program service providers are required to charge schools the lowest price offered to comparable customers. However, there is evidence that the program's crucial low-price requirement has been widely neglected.

What steps are the Universal Service Administrative Company and the FCC taking to ensure that E-Rate funds are used correctly, and that schools and libraries are receiving the proper discounts on services?

What are the USAC and the FCC currently doing to ensure that service providers under the E-Rate program are charging schools and the Federal Government the lowest available prices?

Answer. E-rate program participants are required to ensure compliance with all applicable Commission rules, including the lowest corresponding price (LCP) rule.

USAC's annual trainings for applicants and service providers include a reminder that service providers are required to comply with the LCP rule.

FCC has taken actions to ensure LCP compliance, including, in 2009, an \$8.3 million FCC-DOJ settlement agreement with AT&T regarding over-billing.

We will continue to work to ensure LCP compliance going forward.

Question 5. The National Broadband Plan recommended making changes to the E-Rate program to make services more cost-efficient, prioritize funding, and give schools and libraries more flexibility regarding how funds are used. Added flexibility and efficiency are vital for broadband access expansion in California, where sadly 15 percent of schools still lack a broadband connection. Can you detail any progress made toward these goals, including actions taken and future plans?

Answer. The FCC's 2010 E-rate Order is making it easier for schools and libraries to get the highest speeds for the lowest prices by increasing their options, streamlining the application process for educators and librarians, and strengthening protections against fraud and abuse. We are continuing to update programs across USF and in other areas to meet the needs of the broadband age.

Question 6. Unleashing spectrum for wireless broadband is critical to our economy. However, California television stations have inquired about the existence of translator and low power service at the conclusion of the repacking process which will follow the reverse auction. Over four hundred of these stations exist in California and serve a large and diverse portion of the state. Where do translator and low power services fit in the Commission's plan to auction broadcast television spectrum?

Answer. Congress chose not to provide special protection in the Spectrum Act for low power TV and TV translators, which are secondary services. However, we recognize the important services low power and TV translator stations provide, particularly in rural areas, and are seeking input on measures to ensure that their valued programming continues to reach viewers.

Question 7. In his testimony, Commissioner Pai expressed concern that the incentive auction may fail to provide sufficient funding for FirstNet to build a nationwide, interoperable public safety broadband network. As you know, this funding is essential to addressing the serious gap in our Nation's public safety communications identified in the 9/11 Commission Report. What steps are you taking to ensure that FirstNet will receive sufficient funding to fulfill its mandate and ensure our Nation has a reliable public safety network?

Answer. The Commission's central goal is to repurpose the maximum amount of spectrum for flexible licensed and unlicensed use in order to unleash investment and innovation, benefit consumers, drive economic growth, and enhance our global competitiveness, while enabling a healthy, diverse broadcast television industry.

A key goal of the incentive auction is to raise sufficient revenues to meet the policy objectives of the Spectrum Act, including funding FirstNet. Other auctions required under the Spectrum Act, such as the H Block auction later this year, will also be a source of funding for FirstNet. As Chairman Genachowski stated when the Commission adopted the Notice of Proposed Rulemaking on implementation of the incentive auction, "Our duty and intention is to faithfully implement the law, freeing up spectrum, raising very substantial revenue, and helping fund FirstNet first responders."

Question 8. On March 4, 2013, you released a statement supporting consumers' ability to unlock their cell phones so that they can use them with a different mobile phone company. My colleagues, Senators Klobuchar, Lee, and Blumenthal, have in-

roduced the Wireless Consumer Choice Act, which directs the Commission to order carriers to allow cell phone unlocking. Would the Commission need additional authority from Congress to enforce a cell phone unlocking order?

Answer. From a communications policy perspective, the decision of the Copyright Office of the Library of Congress raises serious competition and innovation concerns. For wireless consumers, it doesn't pass the common sense test. The FCC has been closely examining this issue, with the goal of preserving consumers' ability to unlock their mobile phones. We also encourage Congress to consider a separate legislative solution.

Question 9. A recent Government Accountability Office report concluded that the FCC's cell phone safety standards, which were adopted in 1996, "may not reflect the latest evidence" of the health risks of mobile phone radiation. You reportedly circulated a draft Notice of Inquiry (NOI) proposing a review of the Commission's outdated cell phone safety standards in June 2012, but the public is still waiting for the Commission to take action. When can the public expect the release of the NOI and the initiation of the Commission's review of mobile phone safety standards and testing requirements?

Answer. The Commission released this item on March 29, 2013 and it can be found online at: http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-13-39A1.pdf

We are confident that, as set, the emissions guidelines for devices pose no risks to consumers. The United States has one of the most conservative emissions standards in the world. This item provides for a routine review of our standards. We hope and expect that other Federal agencies and organizations with whom we work with on this issue will participate in the process.

Question 10. I was pleased to see that, after considering the issue for nine years, the Commission initiated a rulemaking to consider how to eliminate predatory prison phone rates. Exorbitant prison phone rates impose a significant financial burden on families and reduce contact between inmates and loved ones, contributing to recidivism. When can we expect the Commission to adopt rules on prison phone rates?

Answer. The record on the *Inmate Calling Services NPRM* closed on April 22. We are actively reviewing the record and considering next steps.

Question 11. The Commission has suspended the media ownership proceeding, and it has not yet moved ahead on the long-awaited studies considering the information needs of communities, which implement Congress' directive in Section 257 of the Communications Act. The civil rights community is anxiously awaiting these studies. When can we expect to see the planned framework for these studies and when will they produce policy recommendations suitable for Commission action?

Answer. Our Office of Communications Business Opportunities (OCBO) continues to review the state of communications and media markets as it coordinates the Commission's Section 257 Report to Congress. As part of this process, in 2012, we commissioned a review conducted under the direction of The University of Southern California Annenberg School for Communication and Journalism, of the existing literature analyzing the critical information needs of the American public.

The Annenberg report was submitted to the Commission in July 2012. Following the release of the literature review, and to assist implementation of its recommendations, OCBO retained an independent contractor to design a research model to examine how media ecologies function; how critical information is made available in various media ecologies; how individuals construct their own media ecologies to meet their critical information needs; and what barriers exist in our media ecologies to providing and accessing this information.

The work on the research model was recently completed and delivered to the Commission. The research model is currently on the Commission's website and remains open for public comment.

Question 12. I was very pleased to see that the Commission finally finished implementing the Local Community Radio Act of 2010 and that it has set an October 2013 application date for new stations.

Is the Commission on track to begin accepting applications in October?

What else is the Commission doing to ensure that as many organizations as possible are able to take advantage of this opportunity?

Answer. Commission staff continues to work diligently to process the pending FM translator applications in advance of an LPFM window currently anticipated in October of this year.

The Commission has created new tools for entities interested in the LPFM service. For example, we released a new LPFM Channel Finder that searches the FCC database for available LPFM channels at specific locations. We also held a Public Forum regarding the new rules adopted under the LCRA. Our webpage provides de-

tailed information on LPFM service, and the public will be provided notice well in advance of a filing window opening.

Question 13. A number of private entrepreneurs are in the process of purchasing television stations that will be eligible to participate in the spectrum auction. There have been anecdotal reports that a number of these stations are currently contributing unique perspectives or niche programming not available anywhere else. Community groups are concerned that the purchase of these stations might harm the already-dismal media ownership diversity levels.

Has the Commission analyzed the current market impact of these transactions on media ownership diversity?

What is the Commission considering as options to minimize the potentially devastating impact of these transactions on diversity?

Answer. The Incentive Auction NPRM specifically seeks comment on measures that can be taken outside of the media ownership rules context to address any impact on diversity as a result of an incentive auction. Specifically, those measures could include encouraging multicasting or other distribution methods that could ensure continued access to minority-oriented or niche programming. In addition, the Commission continues to evaluate other ways to help increase minority and female ownership of broadcast stations.

Question 14. On November 30, 2012, I along with eight of my colleagues sent a letter urging you not to relax the Commission's cross-ownership rules without responding to our concerns about the low levels of female and minority ownership of broadcast radio and television stations. In February, the Commission announced that it would be delaying its vote on the new rules as it awaits the results of a study by the Minority Media and Telecommunications Council regarding the effects of cross-ownership rules on minority ownership and newsgathering.

Given the fact that MMTC's study is to be conducted by a broadcast industry analyst who is backed by the newspaper and broadcast industry associations and has publicly supported a relaxation of the cross-ownership rules, do you believe the study represents an independent and impartial analysis of the impact of cross ownership on minority owners?

Do you believe the study's methodology will provide the kind of analysis required by the Third Circuit Court of Appeals when it ordered the Commission to provide better justification for proposed diversity efforts?

Does the Commission believe that radio contributes to viewpoint diversity?

If the Commission were to conclude that radio does not contribute to diversity, how would that decision undermine future efforts to ensure that radio ownership is as diverse as the country it serves?

Answer. We believe that the study proposed by MMTC will augment the record in the pending media ownership quadrennial review proceeding. The Commission will review the MMTC study, including its methodology, when it is submitted and take appropriate action at that time based on all of the evidence in the record.

While it is true that recent research shows that most radio stations do not produce significant amounts of local news and that most consumers do not rely on radio stations as their primary source of local news, the Commission has held that certain radio ownership limits are necessary to promote viewpoint diversity "by ensuring a sufficient number of independent radio voices and by preserving a market structure that facilitates and encourages new entry into the local media market." *2006 Quadrennial Review Order*, 23 FCC Rcd at 2077, ¶ 127 (citing *2002 Biennial Review Order*, 18 FCC Rcd at 13739, ¶¶ 305–06).

Question 15. The Commission has acknowledged that rural consumers are experiencing significant problems receiving long distance or wireless calls on their landline telephones. The problem appears to be attributable to the use of IP-based least-cost routing providers. What does the Commission plan to do to ensure that such interconnection and reliability problems do not become more prevalent as our Nation's telephone networks transition to wireless and IP-based services?

Answer. First, public safety and consumer protection are core principles guiding the work of the FCC's Technology Transitions Policy Task Force on the migration of communications networks and services. Ensuring the basic ability of all Americans to reliably receive phone calls is a critical consideration in this effort.

In addition, actions in the USF/ICC Transformation Order are aimed at ensuring reliable communications, including transitioning from old systems of intercarrier compensation to "bill and keep" (which would largely eliminate incentives for practices that undermine the reliability of rural service) and an express prohibition on call blocking.

The Commission has also created a Rural Call Completion Task Force to provide intra-agency coordination and a dedicated process for rural carriers and consumers to report problems.

Question 16. In light of the recent complaint filed in Federal court by VoIP providers claiming that the Commission lacks authority under the Communications Act to apply the no-blocking rule to VoIP calls, is additional authority needed from Congress to address the rural call completion problem?

Answer. The Commission currently has authority to apply its ban on call blocking and other rules to address the rural call completion problem on VoIP services as appropriate. The Commission generally has not yet decided whether VoIP services that are exchanged with local exchange carriers over the public switched telephone network should be classified as “telecommunications services” or “information services” under the Communications Act.

If the Commission ultimately determines that such VoIP services are telecommunications services, it would have authority to ban call blocking and practices that result in the failure to complete calls to rural areas as “unjust and unreasonable practice[s]” under Section 201(b) of the Communications Act, in addition to other possible sources of authority.

If the Commission ultimately determines that such VoIP services are information services, it still would have authority under its Title I jurisdiction to adopt rules reasonably ancillary to the effective performance of its statutorily mandated responsibilities, such as enforcing a prohibition on call blocking and related practices by carriers.

The Commission has a pending Notice of Proposed Rulemaking seeking comment on these issues, and the resulting record will inform what additional steps it is appropriate for the Commission to take in this regard.

Question 17. More than half of U.S. broadband subscribers are subject to some form of bandwidth cap or usage-based pricing. Experts have pointed out that broadband caps are inefficient for addressing network congestion and may, instead, have anticompetitive effects. What does the Commission plan to do to ensure that caps do not undermine access to affordable, high-speed broadband?

Answer. The provisions of the Open Internet order require transparency in carrier pricing of broadband service. Business model experimentation can help consumers, in particular providing lower priced options to low volume users.

At the same time, new business models and new services by broadband providers should not come at the expense of competition, including from over-the-top providers, or at the expense of increases in broadband speed and monthly capacity. We will continue to monitor this space.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BILL NELSON TO
HON. JULIUS GENACHOWSKI

Online Public File

Question 1. As we discussed during the hearing, top broadcast stations in the largest of markets are now required to put their public files, which includes political ad information, on the Internet. Is there a policy or statutory rationale for not requiring the same practice from other multichannel video programming distributors that maintain similar files?

Answer. Currently all television broadcast stations are required to place substantially all public file contents online, with the exception of political files. In addition, television stations affiliated with the top four networks (ABC, CBS, Fox and NBC) in the top 50 Nielsen markets are required to place their political files online. All other broadcast television stations will transition their political files online by July 1, 2013.

The Commission limited the online disclosure requirement to broadcast television stations because the proceeding at issue grew out of the digital transition, which had addressed only broadcast TV, and not radio or MVPDs, and extending the requirements beyond TV stations was not possible on the existing record.

The Commission also noted that limiting applicability at the outset would help ease implementation and allow for a smoother transition.

NG911

Question 2. The FCC has stated that one of its objectives is to ensure that any NG911 solution ultimately includes the ability of cell phone users to transmit video and photos to 911 call centers in real time during a public safety or law enforcement event (in addition to voice and text). However by most estimates, availability of such capability (photos and video, or MMES—multimedia emergency services) in a pure

IP NG911 environment, is at least 3–10 years away, given the cost and development required.

If the technology already exists today, to deploy video and photos in a hybrid SMS/IP solution, that could be deployed now, on existing analog or digital PSAP (911 call center) infrastructure, and that technology would be compatible with any future upgraded IP NG911 system, what can the FCC do to help advance such solutions so that they are available to all Americans?

Answer. The FCC is taking a number of steps to advance NG911 and to promote a variety of technological solutions that will enhance access by public safety to cutting edge technology. For example, as a part of the transition to NG911, the Commission has proposed to require carriers to provide text-to-911 service as an essential first step. The four largest wireless providers (AT&T, Verizon Wireless, Sprint Nextel and T-Mobile) have already voluntarily committed to provide text-to-911 service to public safety answering points capable of receiving texts by May 15, 2014. The Commission has proposed to require other carriers and certain interconnected text messaging providers to do the same.

Earlier this month the Commission imposed an obligation on wireless carriers and certain over the top interconnected text messaging providers to supply a “bounce back” message to consumers that attempt to send a text to 911 where the service is not supported. This “bounce back” message service must be implemented no later than September 30, 2013.

The Commission is also examining ways to secure the current and future NG911 infrastructure, and recently adopted a Notice of Proposed Rulemaking to examine vulnerabilities in the 911 system. This is a part of the Commission’s focus on infrastructure reliability and resiliency arising out of the communications issues that followed the mid-Atlantic derecho and Superstorm Sandy.

While the Commission can impose requirements on those within our jurisdiction, NG911 will also require the commitment and investment from a variety of stakeholders outside of the Commission’s purview. Carriers, manufacturers, application developers, and state and local governments must collaborate to ensure the transition is timely, cost-effective and meets the needs of both public safety and consumers. To that end, Congress directed the Commission to submit recommendations on the promotion of NG911, which were submitted earlier this year. The Commission’s report included recommendations that would provide incentives for each of these stakeholder segments to participate and promote NG911 deployment, including the provision of needed funding to state and local authorities.

600 MHz Band Incentive Auction

Question 3. Under the Middle Class Tax Relief and Job Creation Act of 2012, Congress directed that you only have one chance at this broadcast incentive auction. Although the market will determine how much spectrum will be repurposed, it is the Commission that will come up with a mark and a band plan prior to the auction’s start. Will you seek the most amount of spectrum you can reasonably identify for commercial use, and at a minimum, to the 120 MHz called for by the National Broadband Plan?

Answer. The Commission’s central goal is to repurpose the maximum amount of spectrum for flexible licensed and unlicensed use in order to unleash investment and innovation, benefit consumers, drive economic growth, and enhance our global competitiveness, while at the same time enabling a healthy, diverse broadcast television industry.

1755–1780 MHz & Federal Spectrum

Question 4. The March 2012 NTIA Report on the potential for clearing and reallocation of the 1755–1850 MHz band indicates that full relocation of government users may take up to 10 years and cost some \$18 billion. I understand these projections were provided by the affected Federal spectrum users.

Is the FCC working with NTIA to assess and scrutinize these projections to confirm the accuracy of these projections? Are these timeframes consistent with major relocation efforts? What can the FCC do to gain a better understanding of the cost to relocate Federal spectrum users and to tighten the timeframes for vacating the band?

Answer. The Commission continues to work with NTIA and other stakeholders, including the Department of Defense, to free up spectrum for commercial use, consistent with the President’s goals, while also enabling vital government operations to continue. The process requires complex technical analysis before any decisions are made. Commission staff has been working with our counterparts at NTIA and DoD to help facilitate sharing of information with industry stakeholders in order to perform that technical analysis. We are hopeful that analysis of the 1755 MHz band

can be completed in a time-frame that would allow it to be paired with the 2155 MHz band for auction.

USF

Question 5. The FCC's National Broadband Plan Goal #4 said that anchor institutions in all communities should have high-capacity 1 Gigabit per second connections by the year 2020. Many schools, libraries, health clinics and other anchor institutions are straining to obtain affordable, high-capacity broadband connections to keep up with the growing demand for Internet-based services. What actions are planned by the agency to promote high-speed broadband for anchor institutions and to make these services affordable?

Answer. The Commission has taken several steps to promote high-speed broadband for anchor institutions:

- Through the Commission's Broadband Acceleration Initiative, we have expanded the reach of robust, affordable broadband by streamlining access to utility poles and improving policies for wireless facilities siting. We also have initiated a proceeding to examine whether federal, Tribal, state, and local government policies for access to rights of way could be improved, and have worked closely with other Federal agencies to implement Executive Order 13616 and streamline access to Federal land and buildings to speed broadband deployment.
- The 2012 Healthcare Connect Order aims to increase access to broadband and broadband networks for health care providers, especially those serving rural areas. Eligible anchor institutions include: public/not-for-profit hospitals, rural health clinics, community health centers, health centers serving migrants, community mental health centers, local health departments or agencies, post-secondary educational institutions/teaching hospitals/medical schools, or a consortium of the above.
- The 2011 USF/ICC Transformation Order adopts performance goals to ensure the availability of broadband and voice service to homes, businesses, *and community anchor institutions*. To that end, the Order requires funding recipients to identify and report on the community anchor institutions that newly gain access to fixed broadband service as a result of the funding. The Commission also expects funding recipients to engage with community anchor institutions in the network planning stages with respect to the deployment of supported networks.
- The Special Access data collection order balances the burden and need for necessary data for an annual \$12-\$18 billion market. Getting these rules right is critical to competition and providing broadband access for small businesses.
- The 2010 E-Rate Reform Order makes it easier for schools and libraries to obtain highest speeds for the lowest prices by increasing their options, streamlining application process for schools and libraries, and strengthening protections against fraud and abuse.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. FRANK R. LAUTENBERG TO HON. JULIUS GENACHOWSKI

Question 1. New Jersey's only high power television station, WWOR, is required to serve the unique needs of New Jersey. But WWOR has largely failed to do so. The FCC could place additional conditions on WWOR's license, which expired in 2007, to better ensure local New Jersey coverage. But the Commission has not acted on that application for six years now. When can we expect the FCC to make a decision on WWOR's license renewal application?

Answer. The renewal application is pending as the staff works through the various issues presented in Petitions to Deny renewal, as well as a separate misrepresentation issue related to additional information submitted under the Commission's ex parte rules. There is no specific time frame for action on the renewal.

Question 2. As you know, I am concerned about allegations of misconduct and dishonesty by News Corporation in its phone hacking and bribery allegations overseas, and in its WWOR renewal application. Despite these serious allegations, there has been no indication that the FCC is taking seriously its duty to ensure that those entrusted with serving the public interest are deserving of broadcast licenses. What has the FCC done to demonstrate that it takes reviews of the character of its broadcast license holders seriously?

Answer. The Commission takes all character issues seriously when they are presented—typically through complaints—such as indecent programming complaints or as Petitions to Deny renewal or license transfer applications. If a party raises a

character issue, the application is immediately placed on hold and an investigation is conducted.

Question 3. Many railroads—particularly commuter railroads—are having difficulty meeting the 2015 requirement to install Positive Train Control because of a lack of available spectrum. With the 2015 deadline looming, what steps is the FCC taking to accommodate PTC implementation?

Answer. The FCC staff is working closely with industry stakeholders, the National Transportation Safety Board, and the Federal Railroad Administration to address the spectrum needs of the commuter rails. As you may know, the FCC faces challenges in providing spectrum for PTC because the Rail Safety Improvement Act of 2008 did not designate spectrum for PTC or provide funding to rails for purposes of acquire spectrum to implement PTC. However, the staff is actively working with key stakeholders to help negotiate spectrum needs on the secondary market and have granted waivers of technical, construction, and other rules to enable timely PTC deployment. At staff's request, PTC-220, a consortium of the largest U.S. freight railroads which hold substantial nationwide spectrum, is working closely with many commuter rails to meet their PTC spectrum needs.

Question 4. Nineteen states currently restrict local governments' ability to offer broadband, even in areas where companies won't make it available or affordable. I have previously introduced bills that would prevent states from restricting municipal broadband, and I am considering reintroducing this legislation. Do you agree that states should not be permitted to restrict municipalities from offering broadband to their residents?

Answer. High-speed broadband is vitally important to our global competitiveness and the continued growth of our economy, and we must keep pushing for faster speeds and greater capacity through new investments in broadband networks.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. CLAIRE McCASKILL TO
HON. JULIUS GENACHOWSKI

Question 1. Chairman Genachowski and I have both written to the Federal Aviation Administration (FAA) encouraging the agency to revise its rules to allow for the expanded use of electronic devices during flight. The FAA has established an Aviation Rulemaking Committee (ARC) to look at possible changes to the rules, and the FCC has a representative on that committee, which will make recommendations to the FAA Administrator this summer. Given Chairman Genachowski's stated position on the issue, can I trust that you will be directing the FCC's representative on the ARC to convey the opinion of the Commission that the rules should be changed and work to aggressively push the FAA to do so?

Answer. The Commission's representative is actively participating in the work of the FAA Aviation Rulemaking Committee examining the issue. The committee includes representatives from the various stakeholders, including aircraft manufacturers, pilots, flight attendants, consumer device manufacturers and various other organizations with expertise in this area. The committee is conducting a thorough examination of the issues, is reviewing all relevant data and plans to make its recommendations to the FAA in late summer. We will continue to work closely with the FAA to develop common sense actions to allow for the expanded use of electronic devices during flight.

Question 2. Although the FCC's reforms to the Universal Service Fund's (USF) Lifeline program through its February 2012 order were much needed, and attempted to address duplicative Lifeline support, ineligibility, deceptive marketing and other concerns raised in my December 2011 letter to you on this topic, the reforms appear to have had little effect in limiting the rapid growth of the program.

While I commend the Commission for its attempt to rein in the rapid growth of the Lifeline program and address the problems you inherited when the program was expanded to include wireless providers without any additional safeguards to prevent waste, fraud and abuse, even with the reform order in place the Lifeline program grew by 26 percent (\$445 million) last year. What additional action is the Commission considering to address waste, fraud and abuse in the Lifeline program?

Question 2a. Specifically, would the Commission consider suspending new enrollment in the program while the reforms continue to be implemented?

Answer. The Commission's reforms have fundamentally altered the course of this program. In each of the past two quarters, Lifeline disbursements are down compared to the previous quarter. USAC projects another decrease in the third quarter. Disbursements have declined steadily from \$185.1 million in December 2012 to \$145.8 million in May of this year. Subscriberhip has steadily declined each month

since reform took effect, dropping from 18.2 million subscribers in August 2012 to 13.35 million in May 2013. The Commission exceeded its \$200 million savings target in 2012 and is on track to save \$2 billion by the end of 2014. Certainly, the Commission is monitoring the effect of its reforms and, based on this, will determine whether additional reforms are necessary.

Question 2b. Would the Commission consider capping the program?

Answer. When the Commission adopted reforms in early 2012, it unanimously determined that a savings target was appropriate to determine the impact of the reforms. We exceeded the \$200 million savings target in 2012, and are on track to save \$2 billion by the end of 2014. We continue to monitor the impact of our reforms and determine whether additional reforms are necessary.

Question 2c. We are quick in Washington to create new programs but what we don't do often enough is reevaluate those programs to make sure they're still needed. The FCC created the Lifeline program nearly 30 years ago to make sure local phone service was still affordable for low-income Americans following the breakup of AT&T in 1984. Because technology has changed and competition has grown, basic telecommunications services are as affordable as ever. I am wondering if the Commission has recently looked at whether the Lifeline program is even still necessary, and if not if you would be willing to do so?

Answer. In the 1996 Telecom Act, Congress codified into law the principle that "consumers in all regions, including low-income consumers . . . should have access to telecommunications and information services." The Commission's Lifeline program implements that directive.

In 2010, the National Broadband Plan recommended that the FCC work with states on Lifeline issues. Shortly thereafter, the FCC asked the Federal-State Joint Board on Universal Service (Joint Board) for input on reforming the Lifeline program. Building on recommendations from the Joint Board, as well as recommendations in a 2010 report from the Government Accountability Office (GAO), in 2011 the FCC initiated reforms of the Lifeline program not only by commencing a comprehensive rulemaking, but also by implementing intermediate steps directed at reducing duplicative support, including targeted audits. The rulemaking ultimately culminated in a complete overhaul of the program in early 2012 when the Commission approved the Lifeline Reform Order. Currently, the Commission is reviewing the impact of these reforms to gauge whether additional actions are warranted. As with all our universal service programs, it is critical that we regularly review Lifeline.

Question 3. Last year Congress passed a Rubio-McCaskill resolution, S.Con.Res. 50, stating that Internet infrastructure and content should remain free from international regulation. Members of the U.S. delegation to the ITU conference in Dubai have indicated that Congress sending a clear message on the issue was helpful in their negotiations and that our efforts on this issue should continue, especially since those nations that want greater regulation of Internet infrastructure and content will certainly continue in their efforts.

What more can Congress be doing to help promote a free and open Internet around the world?

A handful of countries, such as China and Iran, want to heavily censor the Internet content people can access inside their borders, while many other nations are simply looking for ways to generate revenue from Internet traffic that moves through their country, much in the same way they have done with voice communications for years. Are there policies the United States can and should be promoting around the globe to help other nations develop their telecommunications infrastructure, unleash the economic activity that comes with it, and thus remove their desire to use global Internet traffic as a revenue source?

Answer. Though the Department of State heads U.S. participation in international meetings, the Federal Communications Commission is an expert agency and member of U.S. delegations to many international telecommunications meetings. In that capacity, at the International Telecommunication Union's (ITU) World Conference on International Telecommunications (WCIT) in Dubai last December, we witnessed the benefit of strong bipartisan support from the U.S. Senate in the form of S.Con.Res. 50. Such unity of purpose going forward as the United States seeks to promote a free and open Internet will continue to be helpful.

The discussions at the WCIT in Dubai highlighted the criticality of working with developing countries to highlight the benefits of the Internet and how to achieve those benefits. We are working with the U.S. State Department and other agencies to continue outreach efforts that focus on promoting an enabling environment for broadband development that creates opportunities for the private sector to invest in innovative technologies. For example, the United States has encouraged countries

to adopt transparent policy and legal frameworks; open telecommunications markets to competition; adopt licensing and taxation reforms; establish transparent universal service programs to support telecommunications instead of subsidies from international services; and encourage the efficient and innovative use of spectrum for mobile broadband. We have and will continue to emphasize in our work with developing countries and others that regulations that seek to control revenue flows will hinder investment and impede broadband growth.

The benefits of that outreach were evident at the ITU's recent World Telecommunications Policy Forum May 14–16, where consensus was quickly reached on non-binding opinions concerning Internet policy and governance issues. There are many additional opportunities over the next several months to advance these outreach efforts, including at the ITU's Global Symposium for Regulators in July, and bilateral meetings with individual countries.

Question 4. The upcoming incentive auctions have been pitched to Congress as a market-based mechanism that would help put spectrum in the hands of those most capable of unleashing its economic potential. That was an appealing idea, and on that basis Congress authorized you to conduct them. Now there is some concern that the Commission is contemplating going beyond what will be freed up by the auctions and is considering repurposing or reallocating many more megahertz in rural areas just through repacking broadcasters and eliminating LPTV and translator service.

Is your intention to deal only with what is freed up by auctions, or is your intention to reallocate as much spectrum from broadcasters to broadband providers as possible?

Has the Commission studied the impact of reclaiming spectrum on LPTV and translator service, especially in more rural states that rely heavily on them to reach areas where no other service is available?

Answer. The Commission is committed to running a market-driven process focused on providing opportunities for broadcasters in all markets to participate in the incentive auction. To this end, our goal is to match wireless demand with broadcaster supply as best we can, in both urban and rural markets. A successful auction will result in nationwide, contiguous blocks of spectrum for commercial wireless service while maintaining a vibrant broadcast industry. This newly available spectrum will enable significant economic growth and consumer benefits in all areas, urban and rural.

Congress envisioned that full power and Class A TV stations that choose not to participate, or participate and do not have their bids accepted, may need to be repacked. Therefore, in the Spectrum Act, Congress provides relocation funding and requires the Commission to make reasonable efforts to preserve the coverage areas and populations served of such stations.

Additionally, Congress chose not to provide special protection in the Spectrum Act for low power TV and TV translators, which are secondary services. However, we recognize the important services low power and TV translator stations provide, particularly in rural areas, and are seeking input on measures to ensure that their valued programming continues to reach viewers.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. AMY KLOBUCHAR TO
HON. JULIUS GENACHOWSKI

Question 1. The FCC released its Sixth Order of Reconsideration on USF Reform. I understand that this order made some near-term changes to the model-based caps on universal service support. However, there are still concerns being voiced, including by the Secretary of Agriculture.

How are you responding to the concerns raised by the Secretary of Agriculture and others to ensure that companies can continue to make investments to build out future proof broadband networks with some reasonable understanding of what universal service support will or won't be available?

Answer. Commission staff worked with RUS throughout the USF reform process to understand its concerns and to estimate the potential impact of different reform options on RUS borrowers. We recognize this has been a period of transition, but it was critical to reform a system that had become wasteful and inefficient and was focused on phone service, not broadband. We will continue to work with RUS as we complete our implementation of reforms.

Question 2. Last year, Congress passed the Spectrum Act, authorizing the FCC to conduct the world's first-ever incentive auction. The Act specifically mentions that the FCC should coordinate with Canada and Mexico prior to the auction to protect broadcasters from interference in any repacking. I know that this Committee will

continue to look into the implementation of the Spectrum Act as the FCC moves forward with designing the Spectrum Act, but it is important to lay the ground work and have clarity when it comes with our international neighbors. Has the Commission begun coordination with our Canadian and Mexican counterparts, if so, please comment on any of the discussions and their progress. Does the timeline for coordination align with the timeline for television repacking resulting from the auction?

Answer. The Spectrum Act requires that the FCC coordinate with the Canadian and Mexican governments during the incentive auction proceeding, and the FCC and the State Department have been engaged in on-going discussions with our counterparts in the Canadian and Mexican telecommunications authorities relating to the auction.

As is typical of open spectrum proceedings with cross-border implications, the United States and its Canadian and Mexican counterparts have established government-to-government working arrangements to help ensure optimal outcomes for all three countries. Historically, this process has resulted in mutually beneficial understandings on efficient, interference-free use of the spectrum in the U.S.-Canada and U.S.-Mexico border areas.

The U.S.-Canada working arrangement has resulted in several teleconferences over the past several weeks. The Commission expects these consultations will ultimately lead to a better-designed and more successful incentive auction, and will create opportunities for greater spectrum efficiency and band harmonization across North America.

Question 3. Last year in this committee, you came before us just after taking action on wireline cramming—a practice that has gone on too long and cost consumers billions of dollars. I recognize there are intricacies to the wireless industry that vary from wireline billing practices, but I strongly urge the Commission to take up the issue for wireless consumers sooner rather than later. Americans are moving to wireless at exponential rates. Consumers cannot afford to fall victim to crammers because the FCC does not act. Mr. Chairman, last year you committed to look into the wireless cramming problems, have you made any progress or additional findings?

Answer. A pending Notice of Proposed Rulemaking seeks to obtain information on the scope of wireless cramming complaints. Commission staff is reviewing the record developed in that proceeding and the data we are receiving from complaints, as well as the trends in the number of wireless cramming complaints we are receiving.

On April 18, the Commission held a Public Workshop with industry experts as well as consumer and state representatives, to help educate consumers protect themselves from both Bill Shock and Cramming. We plan to utilize the information obtained on the pending item and at the workshops to formulate potential next steps.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. RICHARD BLUMENTHAL TO
HON. JULIUS GENACHOWSKI

Broadband Competition

Question 1. In 2010 the FCC stated in the National Broadband Plan that, “. . . there are reasons to be concerned about wireline broadband competition in the United States. Whether sufficient competition exists is unclear and, even if such competition presently exists, it is surely fragile.”

The plan further stated that, “To ensure that the right policies are put in place so that the broadband ecosystem benefits from meaningful competition as it evolves, it is important to have an ongoing, data-driven evaluation of the state of competition,” and that “additional data are needed to more rigorously evaluate broadband competition.”

The Plan specifically recommended the Commission undertake a number of reforms to data collection including:

1. “[C]ollect broadband availability data at the census block level, by provider, technology and offered speed.”
2. “[C]ollect data on advertised prices, prices actually paid by subscribers, plans, bundles and promotions of fixed and mobile broadband services that have material penetration among users, as well as their evolution over time, by provider and by geographic area.” The Plan stated that in particular, it “is crucial that the FCC track and compare the evolution of pricing in areas where two service providers offer very high peak speeds with pricing in areas where only one provider can offer very high peak speeds.”

3. “[C]ollect information related to switching barriers, such as early termination fees and contract length.”

The National Broadband Plan also recommended that the Commission establish a general policy of making the data it collects available to the public, including via the Internet in a broadband data depository.

These recommendations reflect the comments of the Department of Justice, who told the Commission that it “. . . should expand its efforts to include an assessment of the nature and extent of competition in each local broadband market.”

Nearly two years after the National Broadband Plan was released, the Commission issued a Notice of Proposed Rulemaking (NPRM) that encapsulated many of these recommendations. The Commission has yet to act on this NPRM.

Chairman Genachowski, Commissioners McDowell, Clyburn, Rosenworcel and Pai, do you agree with the National Broadband Plan’s recommendations on the need to collect these additional broadband data? Do you think the Commission, policy-makers and the public have the appropriate data to determine if the Commission’s competition policies are, in the words of the Department of Justice, using the appropriate “policy levers . . . to produce superior outcomes,” and if not, what additional data is needed?

Chairman Genachowski, When will the Commission take action on the 2011 Data NPRM, and will it result in the Commission collecting detailed pricing data, and more granular availability data at the census block level? When will the Commission make these data available to the public?

Answer. Commission staff is working diligently to design a collection that ensures the FCC has the data it needs while minimizing the burden on industry and protecting sensitive data. We will update you as we move forward with these efforts.

Sports Blackouts

Question 2. Over one year ago, I wrote the FCC and requested the agency allow public comment on a petition for rulemaking asking the Commission to reexamine the Sports Blackout Rule. This rule is nearly forty years old and, along with other Federal rules and league policies, is one of many obstacles making it unreasonably difficult for fans to watch their favorite teams play.

I thank the Commission for taking my letter seriously and opening a Notice of Inquiry (NOI) to solicit comments from the public and other stakeholders. However, that docket was opened in January of 2012 and the Commission has yet to take any further action.

The response in the proceeding was overwhelming. The NOI garnered thousands of comments from consumers impacted by local sports blackouts, including elderly and disabled sports fans unable to attend live games. The NFL’s revised local blackout policy seems to have done little in the last regular season to help the most heavily impacted markets. Commenters have proposed several options, including preserving the status quo, eliminating the Sports Blackout Rule altogether, or adopting a sunset period requiring a public interest showing to renew the rule.

Chairman Genachowski, given this robust record, when will the Commission issue a Notice of Proposed Rulemaking framing these options and seeking public input?

Chairman Genachowski, Commissioners McDowell, Clyburn, Rosenworcel and Pai, what else can the Commission do to help fans unable to watch their favorite teams compete?

Answer. The Sports Blackout NOI proceeding remains pending as the Bureau staff reviews the record. According to the record, only 6 percent of the 2011 NFL season was blacked out, and most of the blackouts were centered in 4 markets—Buffalo, Tampa Bay, San Diego and Cincinnati.

We recognize that this is a topic that is important to sports fans, but note that the Sports Blackout rules essentially give effect to the existing system of private contractual agreements between the various sports leagues and their distributor partners. The underlying issue remains primarily a copyright issue because the NFL has the right to negotiate private contractual agreements for carriage rights with the various distributors. Those private agreements typically include restrictions on how the content is distributed (*i.e.*, blackout provisions). Thus, although we are monitoring this situation closely, the repeal of the Sports Blackout rule without some restrictions on these private agreements might have little impact on the blackout of sporting events.

Incentive Auctions

Question 3. In September last year, I joined other members of the Connecticut Congressional delegation in writing the FCC to inquire about the process being undertaken in its incentive auction rulemaking. My concern is that when the FCC moves stations, as it will need to do to facilitate this auction, it could cause disrupt-

tions to Connecticut constituents relying on free over-the-air broadcasts for news and information. As we wrote in our letter, we believe that any plan that the commission adopts should not negatively impact the ability of our constituents to receive free local programming via free over the air service.

In your written response, the Commission committed to making the auction process, “as transparent and easy-to-understand as possible.” Further the FCC stated, “the Commission established a program which is designed specifically to educate and solicit substantive input from broadcasters on all aspects of the incentive auction.”

Chairman Genachowski, in addition to generally educating broadcasters, what additional steps are being taken to minimize the potential for consumer harm during the repacking process?

Answer. The Spectrum Act requires the Commission to make all reasonable efforts to preserve coverage area and population served when repacking stations in connection with an incentive auction. The Incentive Auction Notice of Proposed Rulemaking sought comment on the best approaches to achieve that goal. As you note, the Commission developed the Learn Everything About Reverse-Auctions Now (LEARN) program in order to help educate stakeholders, particularly broadcasters. We also recognized in the NPRM that consumer outreach may be necessary in order to inform the public about possible changes and what they would need to do to continue to receive the over-the-air signals—the NPRM sought comment on how and when to do that. The NPRM also sought input on how the post-auction transition process can be managed to minimize any disruption to viewers, and the staff is evaluating the input received.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. WILLIAM M. COWAN TO
HON. JULIUS GENACHOWSKI

Incentive Auctions and Innovation in Unlicensed Spectrum

Question 1. Chairman Genachowski, I understand that you recently visited MIT to discuss the future of innovation in communications. Can you give us a sense of the potential for innovation and economic growth that making space available for unlicensed use in the broadcast bands would generate?

Answer. Both licensed and unlicensed spectrum have contributed to an explosion of new services and applications and increasing mobile broadband speeds, and both will be essential parts of the landscape in the future. The Incentive Auction NPRM proposals seek a balanced approach to repurposing the 600 MHz band for broadband. Freeing up additional spectrum—both licensed and unlicensed—is key to maintaining the United States’ global leadership in mobile.

The Commission proposed clearing and auctioning as much spectrum as possible for licensed use, adding spectrum for commercial providers and substantial revenues for FirstNet and the Treasury. The Commission also proposed making a significant amount of spectrum available for unlicensed use, creating an open platform for innovation to drive economic growth. Unlicensed spectrum also has a proven record of driving innovation, investment, and economic growth—hundreds of billions of dollars of value creation for our economy and consumers. Opening up opportunities for unlicensed spectrum in the 600 MHz band promises to increase these benefits, unleashing important innovations like “Super Wi-Fi,” next-generation Smart Grid monitoring, “Smart City” monitoring, enhanced distance learning, and services and applications that innovators have not even thought of yet.

Question 2. I understand the pressure on wireless companies to expand their spectrum holdings because of the demand from their customers for video and other high bandwidth services but aren’t they using Wi Fi today to offload some of their traffic and couldn’t this create another mechanism to help them become more spectrum efficient?

Answer. Today, approximately one-third of mobile data traffic is offloaded to Wi-Fi, as carriers increasingly develop new methods to manage capacity on their networks.

However, unlicensed spectrum is not a substitute for exclusive use spectrum to meet the growing demands of consumers’ growing reliance on smart phones, tablets and other devices that use more bandwidth.

The Incentive Auction NPRM proposals seek a balanced approach to repurposing the 600 MHz band for broadband to free up additional spectrum—both licensed and unlicensed.

Universal Service Fund

Question 3. Chairman Genachowski and Commissioner McDowell, my state contributes dramatically more to the USF program than we receive, which is particularly problematic because so much of western Massachusetts lacks the wired broadband and wireless infrastructure that many USF recipient states enjoy. How will the reform of the USF program ensure that states like Massachusetts get a fair share of the subsidies the fund releases and in turn makes communications in places like the Berkshires more reliable?

Answer. According to the most recent data from the State Broadband Initiative, 15 million Americans still do not have access to broadband. While we are making progress, more remains to be done. The USF/ICC Transformation Order is generating hundreds of millions of dollars in savings that are being redirected to preserve and extend availability of voice and broadband in areas across the country.

Commission staff continues to make progress in developing a forward-looking cost model for Connect America Phase II that will be used to estimate support amounts in price cap areas. The next steps are to finalize the inputs for the model and address other policy issues concerning the implementation of Phase II.

Question 4. Chairman Genachowski, the demand for the E-rate program far exceeds the available reimbursements. And there are some who fear that adding more services like digital literacy training or e-textbooks to the E-Rate's allowable use of funds will only deplete the already oversubscribed program funds. Is there a way to avoid that outcome and ensure that the focus of the funds remain on the poorest schools and districts while we simultaneously pursue the distribution of more advanced services?

Answer. The E-Rate program has achieved remarkable success—97 percent of American schools and nearly all public libraries now have basic Internet access.

We are at a moment of great opportunity for digital learning. Broadband and digital tools have game-changing potential for education. Our significant E-Rate reforms in 2010 were a strong start to lower costs and expand broadband access to schools and libraries.

As with all our universal service programs, it is critical that we regularly review E-Rate to ensure it is keeping pace with needs, operating efficiently and targeting support effectively.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. ROGER F. WICKER TO
HON. JULIUS GENACHOWSKI

Question 1. Mr. Chairman, during your tenure you described incentive auctions to Congress as a “market-based” mechanism that would help put spectrum in the hands of those who valued it most. That was an appealing idea, and Congress ultimately authorized the FCC to conduct incentive auctions. I have some concerns, however, that the Commission is contemplating going beyond just recovering spectrum from market-based incentive auctions, but is considering repurposing or “taking” many more megahertz in rural areas just through the repacking of broadcasters. This of course could eliminate low power television and translator services. As you know, low power and translators connect viewers to their television services particularly in rural areas across the country. We are talking about wide open places where viewers have few or no other viewing options. Will you commit to sticking to your original advocacy of keeping this process a market-based one that does not take more from rural America than from urban America?

Answer. The Commission is committed to running a market-driven process focused on providing opportunities for broadcasters in all markets to participate in the incentive auction. A successful auction will result in nationwide, contiguous blocks of spectrum for commercial wireless service while maintaining a vibrant broadcast industry. This newly available spectrum will enable significant economic growth and consumer benefits in all areas, urban and rural.

Congress envisioned that full power and Class A TV stations that choose not to participate, or participate and do not have their bids accepted, may need to be repacked. Therefore, in the Spectrum Act, Congress provides relocation funding and requires the Commission to make reasonable efforts to preserve the coverage areas and populations served of such stations.

Additionally, Congress chose not to provide special protection in the Spectrum Act for low power TV and TV translators, which are secondary services. However, we recognize the important service low power and TV translator stations provide, particularly in rural areas, and are seeking comment on measures to ensure their programming continues to reach viewers.

Question 2. The Department of Justice wrote to you on January 28 and asked the FCC to defer action on the proposed acquisition of Sprint by SoftBank, until they and other law enforcement agencies had an opportunity to review the national security concerns they had with this transaction. Enclosed is a copy of the letter. As far as I know, the FCC never officially responded. Furthermore, I understand the FCC has no plans to pause its own review of the transaction and that the 180 day clock would continue to run.

Have you responded to the Department of Justice letter from January 28, 2013? If so, please send me a copy of the response.

If you have not responded, why not?

Per the DOJ's requests, will the FCC defer action on the Softbank/Sprint matter until the DOJ referenced review and the Committee on Foreign Investment in the United States (CFIUS) review are complete?

Answer. As is our standard practice, the FCC is coordinating with an interagency group comprised of the Department of Justice (DOJ), the Federal Bureau of Investigation (FBI), and the Committee on Foreign Investment in the United States (CFIUS) that normally reviews foreign investments in communications infrastructure and intends to address any concerns that result from that process in our order. Because concerns resulting from the interagency group review and related issues are addressed in our orders, we do not typically respond to the standard DOJ letters requesting time to review these matters.

Question 3. What does the Commission plan to do to ensure that the unspent CAF 1 dollars it allocated to support the deployment of rural broadband services are used (soon) for that purpose? Can you tell me exactly when the commission plans to wrap this question up? The market, the parties involved in these disputes deserve certainty.

Answer. Last week, I circulated an order to my colleagues that would make an additional \$300 million in Connect America Phase I funding available to extend broadband to unserved areas in price cap territories. I hope the Commission will act on this draft order soon.

Question 4. I am concerned about the manner in which the FCC has handled petitions seeking agency action. I understand that, in 2012, FCC staff dismissed a Petition for Declaratory Ruling filed by Anda, Inc., a generic pharmaceutical distributor, that had stalled for nearly 17 months without any agency action. The petitioner's request for full Commission review of that order is now almost a year old, and Chairman Genachowski told House members at a recent Energy and Commerce Committee hearing that he "anticipate[s]" that an order resolving that request would be "circulated . . . in the next few months."

A more concrete commitment is warranted at this stage, particularly given the FCC's claim in a recent appellate proceeding that Anda and similarly situated parties must present their arguments to the Commission, rather than directly to courts. Will the FCC commit to circulating an order resolving this matter by no later than April 30, 2013?

Answer. On May 2, 2012, the Commission's Consumer & Governmental Affairs Bureau issued an order dismissing a Petition filed by Anda, Inc. that requested a declaratory ruling clarifying the statutory basis for a Commission rule on fax advertisements. The Administrative Procedure Act provides that an agency, in its sound discretion, may issue a declaratory order to terminate a controversy or remove uncertainty, but the Bureau found that the Petition did not identify any controversy to terminate or uncertainty to remove. The Bureau also concluded that, to the extent that the Petition challenged the Commission's authority to issue the rule itself, the challenge was time-barred, because under the Communications Act and the Commission's procedural rules, requests for reconsideration of this rule were due in June 2006. The Bureau also observed that the Commission's order adopting the rule had specifically tied the opt-out notice requirement to the purposes of section 227 of the Act.

It is not uncommon for a Bureau to dismiss a petition for declaratory ruling when, in the opinion of the Bureau, no controversy or uncertainty has been identified. Anda has filed an Application for Review of the Bureau order to the full Commission, which is currently under review. Staff continues to work diligently on this matter, including a draft order resolving the Application for Review that will be circulated to the other Commissioners for their consideration.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. ROY BLUNT TO
HON. JULIUS GENACHOWSKI

Question 1. At a hearing in front of the House Energy and Commerce Committee last year, you stated your commitment to continuing the FCC's longstanding, hands-off approach to fiber and Internet Protocol Networks. In Kansas City, Missouri and Kansas City, Kansas, a new-market entrant to the broadband market is building a fiber network that is over 100 times faster than standard broadband. Other competitors in these markets are working to upgrade their networks and increase their broadband speeds as well. This is a prime example of private industry reacting to competitive forces in a dynamic marketplace and was possible because of the Commission's commitment not to intercede in the expansion of IP and fiber network build outs. Are you still committed to that maintaining the Commission's hands-off approach toward IP-based networks?

Answer. Recent increases in broadband deployments and speeds have been driven by private investment *and* by policies that created and maintain the conditions necessary to enable competition.

In response to the growth of IP networks, last December the Chairman formed the Technology Transitions Policy Task Force to provide recommendations to modernize the Commission's policies in order to empower and protect consumers, promote competition, and ensure network resiliency and reliability. The Task Force is focused on three key transitions: (1) TDM to IP, (2) copper to fiber, and (3) wireline to wireless; it is currently conducting a data-driven review and to develop recommendations. The Task Force builds on actions the Commission already taken to address technology transitions, including: overhauling the Universal Service Fund from voice to broadband; transforming the Intercarrier Compensation system; and advancing Next Generation 911 and direct access to numbering resources by VoIP providers.

Question 2. Mr. Chairman, as part of the legislation which authorized the voluntary incentive auctions, Congress authorized a broadcaster relocation fund, specifically to compensate broadcasters who will not participate in the voluntary incentive auction but who will still be relocated, or "repacked" into different frequencies as a result of what we are all hoping will be a successful auction. The fund was authorized at \$1.75 billion.

Do you forecast this funding level being adequate for the repacking of the broadcasters who will not participate in the voluntary auction?

Is the Commission treating the relocation funding level of \$1.75 billion as a cap on outlays for the moving of broadcasters?

Are there any costs associated with moving broadcasters, such as new translators or power-increase requirements which you do not believe the fund will be used for compensation?

Answer. The Commission will not know how many stations need to be repacked, or the ultimate cost of such repacking, until we conduct the incentive auction. For full power and Class A TV stations that must relocate due to the auction, the Spectrum Act provides \$1.75 billion to "reimburse costs reasonably incurred" by such stations. To ensure that broadcasters' costs and relocation needs are properly met, we are seeking comment on:

- Proposals to allow broadcasters to choose whether to receive advance relocation funds based on estimated costs, or to receive reimbursement for the actual costs incurred with repacking.
- What "reasonable" relocation costs are, including whether to allow for reimbursements for facility upgrades.
- How to prioritize reimbursements in the event that total relocation reimbursements exceed \$1.75 billion.
- Proposals to allow stations to seek a waiver of service rules to provide more flexible use of its spectrum in lieu of receiving reimbursement for relocating.

We are studying the costs, impacts, and logistical challenges involved in the repacking. As always, we will carefully consider all comments that we receive before moving forward on implementing the auction.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. KELLY AYOTTE TO
HON. JULIUS GENACHOWSKI

Question 1. Chairman Genachowski, is the Pentagon giving you the information you need to help facilitate bringing spectrum to the market in a timely manner?

Answer. The Commission continues to work with NTIA and other stakeholders, including the Department of Defense, to free up spectrum for commercial use, consistent with the President's goals, while also enabling vital government operations to continue.

The process requires complex technical analysis before any decisions are made. Commission staff has been working with our counterparts at NTIA and DoD to help facilitate sharing of information with industry stakeholders in order to perform that technical analysis. We are hopeful that analysis of the 1755 MHz band can be completed in a time-frame that would allow it to be paired with the 2155 MHz band for auction.

Question 2. Chairman Genachowski, The New Hampshire congressional delegation sent you a letter earlier this month regarding the spectrum incentive auction proceeding. The letter outlines our interest in preserving viewer access to local television during any reassigning of television channels as may be necessary through the auction process. Can you please give me an update on discussions that may already occurred or that will take place with Canadian officials on international coordination of television channel assignments? What assurances can you give me that there will be little or no interruptions moving forward?

Answer. The Spectrum Act requires that the FCC coordinate with the Canadian and Mexican governments during the incentive auction proceeding, and the FCC and the State Department have been engaged in on-going discussions with our counterparts in the Canadian and Mexican telecommunications authorities relating to the auction.

As is typical of open spectrum proceedings with cross-border implications, the United States and its Canadian and Mexican counterparts have established government-to-government working arrangements to help ensure optimal outcomes for all three countries. Historically, this process has resulted in mutually beneficial understandings on efficient, interference-free use of the spectrum in the U.S.-Canada and U.S.-Mexico border areas.

The U.S.-Canada working arrangement has resulted in several teleconferences over the past several weeks. The Commission expects these consultations will ultimately lead to a better-designed and more successful incentive auction, and will create opportunities for greater spectrum efficiency and band harmonization across North America.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. DEAN HELLER TO
HON. JULIUS GENACHOWSKI

I appreciate the testimony and your candid answers during the hearing. I would like to thank you for your service on the Federal Communications Commission.

Question 1. The hearing touched on many themes that I believe the Committee should look at including process reform, the looming transition to IP and the Spectrum auction. However, an opportunity for the Chairman and the Commissioners to share what they see "over the hill" was not discussed at length. I would like to provide you with an opportunity to share what you believe are some issues that may not have been discussed at the hearing.

The spectrum auction is of the utmost importance. Is the Commission going to set a target date of 2014? What are the challenges with hitting this date?

Answer. The incentive auction involves many complex policy and technical considerations, and Commission staff and world-renowned auction experts are hard at work on these issues. We issued a Notice of Proposed Rulemaking last fall that sought comment on proposals for the incentive auction and we have received more than 400 responses from stakeholders to date. Staff is currently reviewing those responses and continuing to receive input from outside parties to help develop final rules. We anticipate adopting an order in the incentive auction proceeding in 2013 and conducting that auction in 2014.

Question 2. The Commission's spectrum incentive auction process has the potential for channel reassignment. Nevada has over 300 translators and low power TV stations, any repacking will put a significant burden on these stations. Is the FCC taking this into consideration? Can the Commission preserve viewer access to local channels and still hit the target of 2014 for the auction to take place?

Answer. Congress chose not to provide special protection in the Spectrum Act for low power TV and TV translators, which are secondary services. However, we recognize the important service low power and TV translator stations provide, particularly in rural areas, and are seeking comment on measures to ensure their programming continues to reach viewers.

Question 3. According to the National Broadband Plan wireless backhaul is “critical to the deployment of wireless broadband and other wireless services,” particularly “when fiber is not proximate to a cell site.” I understand that the existing wireless backhaul networks face a number of regulatory and technological constraints that limit their potential capacity. These independently-powerable services are also important to undergird FirstNet, the national first responder network. How is the FCC working to speed the deployment of wireless backhaul services in new frequency bands?

Answer. In 2010, the Commission initiated a proceeding that has resulted in 650 MHz of additional spectrum, mostly in rural areas, being made available for wireless backhaul. Additionally, the Commission eliminated unnecessary restrictions and established build-out requirements for certain microwave bands to accelerate the availability of this spectrum, which is used for wireless backhaul.

Question 4. What is the current state of wireless backhaul deployment in the 24 and 39 GHz bands?

Answer. To date, most wireless backhaul deployment has occurred in microwave bands lower than 24 or 39 GHz (for example, the 6 GHz, 11 GHz, 18 GHz, and 23 GHz bands). IDT Spectrum (742 licenses) and Spectrum Holdings Technologies (199 licenses), have reported that they have met the build-out requirements for their licenses in the 39 GHz band. Fibertower, which held 103 out of 111 issued 24 GHz licenses and was the second largest licensee in the 39 GHz band with 634 licenses, built out only 48 of its 737 total licenses in the 24 and 39 GHz bands.

Question 5. Has any company tried to develop new technology that is optimized for wireless backhaul in these new frequency bands?

Answer. The licensees in the 24 and 39 GHz bands confirm that equipment is available for wireless backhaul.

Question 6. The FCC has moved to reclaim wireless backhaul spectrum in the 24 and 39 GHz range from a number of wireless backhaul providers despite the providers request for additional time to complete their roll-out. If the FCC ultimately reclaims spectrum in the 24 and 39 GHz range, how long will it take, including the necessary legal proceedings, for a new wireless backhaul provider to build-out a backhaul service with the seized spectrum?

Question 6a. In at least one case on Appeal to the Full FCC Commission, a significant wireless backhaul provider, from whom the FCC seized spectrum, has proposed an aggressive build-out plan that will have its wireless backhaul network up and running in 18 months. If the FCC were to prioritize the rollout of wireless backhaul services, would it be more expedient to grant an 18 month extension and allow a planned expansion to move forward or can the FCC clear the spectrum and find another company to build-out the necessary wireless backhaul in less than 18 months?

Question 6b. Will the FCC work to ensure that it takes all appropriate actions, including reviewing prior staff-driven efforts intended to strip existing wireless backhaul providers of their spectrum, to speed the build-out of needed wireless backhaul services?

Answers to Questions 6–6b. Only one licensee, Fibertower, failed to demonstrate compliance with the substantial service requirements for 94 of its 24 GHz licenses and 595 of its 39 GHz licenses. The Wireless Telecommunications Bureau (Bureau) denied Fibertower’s requests for an additional extension of time to demonstrate substantial service for these licenses, as well as its associated requests for waiver of the June 1, 2012 substantial service deadline.

Based on these determinations, these licenses automatically terminated, by operation of Commission rule, as of June 1, 2012. The Bureau also denied similar requests for extensions in the LMDS band. None of the terminated licenses was being used to provide backhaul service.

The Commission seeks to make spectrum in inventory available in an efficient and timely manner. As a general matter, once a licensee forfeits a license and it reverts back to inventory, the FCC can move directly to re-auction. With respect to the 24 GHz and 39 GHz licensees that automatically terminated, a bankruptcy court injunction currently prohibits the Commission from reassigning those licenses until the previous licensee exhausts its appeal rights.

Fibertower continues to hold more than 3,000 additional licenses (primarily in the 11 GHz, 18 GHz, and 23 GHz bands) used to provide wireless backhaul services. Those licenses remain in effect. The Commission is giving careful, thorough, and expeditious consideration to Fibertower’s pending application for Commission review of the Bureau’s action denying its extension request.

The Commission will continue to take all appropriate actions to promote the availability of wireless backhaul.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. DAN COATS TO
HON. JULIUS GENACHOWSKI

Question 1. Before proceeding to a final rule that would allow unlicensed users to access the 5.9 GHz spectrum, will the FCC wait for the results of the testing being undertaken by the National Telecommunications and Information Administration (NTIA) to determine whether this spectrum sharing could compromise the life-saving crash avoidance technologies that are being developed by the auto industry and the U.S. Department of Transportation using vehicle-to-vehicle communications over this frequency band?

Question 2. How is the FCC working with the National Telecommunications and Information Administration (NTIA) to study whether and to what extent unlicensed users will be able to share the 5.9 GHz frequency band in a way that does not compromise the life-saving crash avoidance technologies that are being developed by the auto industry and the U.S. Department of Transportation using vehicle-to-vehicle communications over this frequency band?

Answer to *Questions 1 and 2.* The Commission will abide by the statutory requirements with respect to unlicensed use in the 5 GHz band.

FCC staff expects that Intelligent Transportation Systems (ITS) and unlicensed Wi-Fi use will be compatible as both operate within the 802.11 family of technical standards. The FCC has been in communication with NTIA and the Department of Transportation and is aware of NTIA's planned schedule for studying the 5.9 GHz spectrum. The Commission has also been in communication with the Intelligent Transportation Systems industry consortium (ITSAmerica), the IEEE 802.11 standards group, and equipment manufacturers, some of which have interests in both robust Intelligent Transportation Systems and more unlicensed access to spectrum.

We will continue discussions with these interested parties as our rulemaking process continues.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BARBARA BOXER TO
HON. ROBERT M. MCDOWELL

Question 1. On November 30, 2012, I along with eight of my colleagues sent a letter urging you not to relax the Commission's cross-ownership rules without responding to our concerns about the low levels of female and minority ownership of broadcast radio and television stations. In February, the Commission announced that it would be delaying its vote on the new rules as it awaits the results of a study by the Minority Media and Telecommunications Council regarding the effects of cross-ownership rules on minority ownership and newsgathering.

Given the fact that MMTC's study is to be conducted by a broadcast industry analyst who is backed by the newspaper and broadcast industry associations and has publicly supported a relaxation of the cross-ownership rules, do you believe the study represents an independent and impartial analysis of the impact of cross ownership on minority owners?

Answer. As the study has not yet been produced, I have not seen it. Accordingly, it is not possible for me to determine whether it is an independent and impartial analysis of whether, and to what extent, cross ownership affects minority and women ownership. It is my understanding, however, that this study will be peer-reviewed and will be released for public comment. Therefore, all interested parties will have the ability to critique the findings at that time. Furthermore, as of April 8, 2013, I have recused myself from all matters as I prepare to depart the Commission, so I will not be participating in future proceedings regarding media ownership and, in light of the numerous stakeholders involved, it would not be appropriate for me to opine on the hypothetical value of this study.

Question 1a. Do you believe the study's methodology will provide the kind of analysis required by the Third Circuit Court of Appeals when it ordered the Commission to provide better justification for proposed diversity efforts?

Answer. It is my understanding that the MMTC study is limited to evaluating whether eliminating or modifying the Commission's media cross-ownership rules, in the context of our current quadrennial media ownership proceeding, would have an adverse effect on minority and women ownership. It is unlikely that this study will provide an adequate justification to enhance our efforts to increase minority and women ownership. The Commission must be mindful that any action the Commission would take regarding race-and/or gender-based regulations must satisfy the rigorous demands of the Equal Protection Clause, as interpreted under the Supreme Court's *Adarand* line of cases. Throughout almost seven years at the Commission, I have repeatedly called for such studies, commonly referred to as diversity studies

or *Adarand* studies, to be conducted. My efforts to promote diversity in the broadcast marketplace have been recognized by the National Association of Black Owned Broadcasters and the Latinos in Information Sciences and Technology Association. Accordingly, I will repeat: The Commission needs to complete these diversity studies as soon as possible to assist us in supporting any new race-and/or gender-based regulations and to determine the best approaches to increase media diversity, in accordance with the Constitution.

Question 1b. Does the Commission believe that radio contributes to viewpoint diversity?

Answer. I have stated on several occasions that, under section 202(h) of the Telecommunications Act of 1996,¹ the FCC must modernize all of its media ownership rules to reflect current economic and marketplace realities, including the development of new media platforms—such as the Internet, satellite radio and mobile devices—and that any and all unnecessary mandates should be eliminated. Today, whether in their homes, at work, or in their cars, Americans have access to their favorite audio programming not only from radio, but from all of these new outlets as well. Furthermore, there is evidence before the Commission that demonstrates that cross ownership does not negatively affect viewpoint diversity and may actually increase the quantity and quality of local news and information provided by commonly-owned outlets to benefit the American consumer. As of April 8, 2013, however, I have recused myself from all matters as I prepare to depart the Commission, so I will not be participating in future proceedings regarding media ownership and, in light of the numerous stakeholders involved, it would not be appropriate for me to opine further on this matter.

Question 1c. If the Commission were to conclude that radio does not contribute to diversity, how would that decision undermine future efforts to ensure that radio ownership is as diverse as the country it serves?

Answer. As of April 8, 2013, I have recused myself from all matters as I prepare to depart the Commission, so I will not be participating in future proceedings regarding media ownership and, in light of the numerous stakeholders involved, it would not be appropriate for me to opine on this matter. If the Commission undertakes diversity studies, however, and finds that there is a compelling government interest, as informed by the *Adarand* line of cases, the Commission could implement rules that would promote minority and women ownership across all media outlets. For example, diversity studies may provide the justification for a new congressionally-mandated tax certificate program and for Commission rules, such as minority-based bidding credits and incubator programs.

Question 2. The Commission has acknowledged that rural consumers are experiencing significant problems receiving long distance or wireless calls on their landline telephones. The problem appears to be attributable to the use of IP-based least-cost routing providers. What does the Commission plan to do to ensure that such interconnection and reliability problems do not become more prevalent as our Nation's telephone networks transition to wireless and IP-based services?

Answer. As for what the Commission plans to do in the future regarding this issue, I respectfully defer to the Chairman who controls the FCC's agenda.

Question 3. In light of the recent complaint filed in Federal court by VoIP providers claiming that the Commission lacks authority under the Communications Act to apply the no-blocking rule to VoIP calls, is additional authority needed from Congress to address the rural call completion problem?

Answer. While I have not taken a position on whether additional authority would be needed to solve this particular problem, generally speaking, it has been my opinion that clear direction from Congress is preferable as the FCC implements our Nation's communications laws. Furthermore, as of April 8, 2013, I have recused myself from all matters as I prepare to depart the Commission, so I will not be participating in future proceedings regarding rural call completion and, in light of the nu-

¹ Section 202(h) of the Telecommunications Act of 1996 states that:

The Commission shall review its rules adopted pursuant to this section and all of its ownership rules quadrennially. . . and shall determine whether any of such rules are necessary in the public interest as the result of competition. The Commission shall repeal or modify any regulation it determines to be no longer in the public interest.

Telecommunications Act of 1996, Pub. L. No. 104–104, 110 Stat. 56, 111–12 §202(h) (1996); Consolidated Appropriations Act, 2004, Pub. L. No. 108–199, §629, 118 Stat. 3, 99–100 (2004) (amending Section 202(h) of the 1996 Act). I concurred in the December 2011 notice of proposed rulemaking, because the Commission appears to be prepared to accept a regulatory *status quo* while I think major changes are necessary and required by Section 202(h).

merous stakeholders involved, it would not be appropriate for me to opine further on this matter.

Question 4. More than half of U.S. broadband subscribers are subject to some form of bandwidth cap or usage-based pricing. Experts have pointed out that broadband caps are inefficient for addressing network congestion and may, instead, have anti-competitive effects. What does the Commission plan to do to ensure that caps do not undermine access to affordable, high-speed broadband?

Answer. Under a deregulatory structure, the deployment of broadband throughout our Nation has been swift and strong. The impressive growth curve shows that between 2003 and 2009, broadband deployment has increased from reaching 15 percent of Americans in 2003 to 95 percent of Americans in 2009.² Moreover, mobile broadband has been the fastest growing segment of the market and the increased use of wireless devices, in particular, has been tremendous over the past couple years. Between mid-year 2011 and mid-year 2012, the number of smartphones that were active on carriers' networks increased by 36.5 percent for a total of 130.8 million and, during that same time period, the number of wireless-enabled tablets, laptops, netbooks and wireless broadband modems that were active on carriers' networks increased by 42 percent.³

As I have said many times before, generally speaking, the Internet has been the greatest deregulatory success story in history, and the government should not interfere with this success. Rather, the government should let the markets work and let consumers choose. As such, it has been my opinion that broadband providers should have the means to manage their systems. Also, if anticompetitive behavior is uncovered, existing laws can address such behavior.

As for what the Commission plans to do in the future regarding this issue, I respectfully defer to the Chairman who controls the FCC's agenda.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. FRANK R. LAUTENBERG TO
HON. ROBERT M. MCDOWELL

Question 1. New Jersey is a net contributor of close to 200 million dollars a year to the Universal Service Fund (USF). As the USF has grown, so has the burden on New Jersey and other donor states. As the FCC moves from distribution reform to contribution reform, should the FCC take into consideration the impact that contribution reform proposals could have on net contributor states like New Jersey?

Answer. During my tenure at the FCC, I have regularly highlighted the dire need for the Commission to work with all stakeholders to craft pragmatic and fair reforms of the universal service contribution methodology in a manner that is within the Commission's authority. Naturally, net contributor states make up one of the stakeholder groups.

Question 2. What contribution reform proposals could you consider that would best alleviate the burden on net contributor states like New Jersey?

Answer. With all due respect, at this point, it is impossible to answer this question without having access to the relevant data from the various industry sectors that would be impacted by type of reforms.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. CLAIRE McCASKILL TO
HON. ROBERT M. MCDOWELL

Question 1. Chairman Genachowski and I have both written to the Federal Aviation Administration (FAA) encouraging the agency to revise its rules to allow for the expanded use of electronic devices during flight. The FAA has established an Aviation Rulemaking Committee (ARC) to look at possible changes to the rules, and the FCC has a representative on that committee, which will make recommendations to the FAA Administrator this summer.

I am convinced, and I think most Americans agree, any safety concerns that might have once existed to justify the current rules have been addressed by advances in technology both on the airplane itself and in consumer electronics. While I recognize the decision is not one that rests with the FCC, as leaders on technology issues—and as one of only three government agencies with a seat at the table, and the only not under the Department of Transportation—I want to know if all of the Commissioners share those views on this issue.

²See, e.g., FCC, Omnibus Broadband Initiative (OBI), Connecting America: The National Broadband Plan, GN Docket No. 09–51 (2010).

³See CTIA's Mid-Year 2012 Semi-Annual Wireless Survey at 10 (rel. Nov. 2012).

Answer. I have always supported the periodic review of rule to determine if marketplace conditions have changed to allow for the elimination of unnecessary regulations. There have been significant advancements in technology and, therefore, it is common sense to review and evaluate whether current regulations restricting the use of electronic devices on airplanes are still necessary. That said, it is my opinion that the FAA, as the expert agency, should determine whether such devices interfere with airplane system design and when, and to what extent, these devices can be used safely during flight. As of April 8, 2013, I have recused myself from all matters as I prepare to depart the Commission and, in light of the numerous stakeholders involved, it would not be appropriate for me to opine further on this matter.

Question 1a. Given Chairman Genachowski's stated position on the issue, can I trust that you will be directing the FCC's representative on the ARC to convey the opinion of the Commission that the rules should be changed and work to aggressively push the FAA to do so?

Answer. I defer to the Office of the Chairman, who will select and instruct the representative to ARC.

Question 2. Although the FCC's reforms to the Universal Service Fund's (USF) Lifeline program through its February 2012 order were much needed, and attempted to address duplicative Lifeline support, ineligibility, deceptive marketing and other concerns raised in my December 2011 letter to you on this topic, the reforms appear to have had little effect in limiting the rapid growth of the program.

While I commend the Commission for its attempt to rein in the rapid growth of the Lifeline program and address the problems you inherited when the program was expanded to include wireless providers without any additional safeguards to prevent waste, fraud and abuse, even with the reform order in place the Lifeline program grew by 26 percent (\$445 million) last year. What additional action is the Commission considering to address waste, fraud and abuse in the Lifeline program? Specifically, would the Commission consider suspending new enrollment in the program while the reforms continue to be implemented? Would the Commission consider capping the program?

Answer. Since all of these questions seek answers as to what the Commission plans to do in the future regarding this issue, I respectfully defer to the Chairman who controls the FCC's agenda. Regarding a cap, however, I will note that I have supported imposing a long-term fixed budget or cap on the Lifeline program in the past. As of April 8, 2013, I have recused myself from all matters as I prepare to depart the Commission, so I will not be participating in future proceedings regarding the Universal Service Fund and, in light of the numerous stakeholders involved, it would not be appropriate for me to opine further on this matter.

Question 3. We are quick in Washington to create new programs but what we don't do often enough is reevaluate those programs to make sure they're still needed. The FCC created the Lifeline program nearly 30 years ago to make sure local phone service was still affordable for low-income Americans following the breakup of AT&T in 1984. Because technology has changed and competition has grown, basic telecommunications services are as affordable as ever. I am wondering if the Commission has recently looked at whether the Lifeline program is even still necessary, and if not if you would be willing to do so?

Answer. Since this question asks what the Commission plans to do in the future regarding this issue, I respectfully defer to the Chairman who controls the FCC's agenda.

Question 4. In order to keep up with the demand for spectrum, many in the private-sector believe efforts need to be taken to clear some of the federally-occupied spectrum for commercial use, most significantly spectrum currently occupied by the Department of Defense. Chairman Genachowski and I have discussed this issue but I am interested in the views of all of the commissioners.

With the exponential rise in demand for mobile broadband services, we need to look at all potential resources for spectrum repurposing—including Federal Government users. The GAO recently reported that the total percentage of the most highly-valued spectrum exclusively or predominantly used by the Federal Government is as high as 57 percent. Given Federal agency budgets, many of these systems are not up-to-date and thus operate inefficiently, and some Federal uses could be served by commercial mobile providers. Are there specific instances in which you believe Federal spectrum could be operated more efficiently?

Answer. First and foremost, the Federal use of spectrum should be audited so that we have a full picture of how Federal Government agencies are using spectrum. Although some estimate that the Federal Government occupies approximately 60 percent of the best spectrum, others put that figure at over 80 percent. Nonetheless,

without an audit, it is difficult to point out specific instances where Federal spectrum could be operated more efficiently.

Question 4a. In addition to this Committee I also serve on the Armed Services Committee. I have started to look at ways we can incentivize Federal agencies—including the Department of Defense—to clear or share spectrum, to free up more spectrum for commercial auction. Based on your experience working with Federal spectrum users, what ideas can you offer for creating such incentives?

Answer. Congress, the Executive Branch and the FCC should all work together to implement policies that would give Federal users of spectrum an incentive to relinquish it for auction. This scenario could be a win-win-win for the government, the economy and consumers alike. For instance, Federal spectrum users that clear spectrum could receive financial incentives funded by the auctions. In today's economic climate, agencies are more likely to surrender spectrum if they will receive compensation to overcome budget cuts.

I would like to note that spectrum "sharing," which is a vague and ill-defined concept, should not be seen as a substitute for auctioning more spectrum for exclusive-use licenses—especially Federal spectrum. Spectrum sharing is not a panacea and should only be a fallback once we have fully exhausted options for auctioning exclusive licenses for cleared spectrum. Proposed sharing arrangements are not designed for or suited to robust, high-powered and ubiquitous commercial availability.

Further, there is also no evidence that spectrum sharing with the Federal Government will allow for the more-timely deployment of Federal spectrum for commercial use. Spectrum sharing, by its very nature, raises interference issues that need to be analyzed before sharing can occur. For these reasons, we cannot be complacent. Nor should we stop advocating for additional Federal spectrum to be auctioned for exclusive use licenses.

Question 5. Last year Congress passed a Rubio-McCaskill resolution, S.Con.Res. 50, stating that Internet infrastructure and content should remain free from international regulation. Members of the U.S. delegation to the ITU conference in Dubai have indicated that Congress sending a clear message on the issue was helpful in their negotiations and that our efforts on this issue should continue, especially since those nations that want greater regulation of Internet infrastructure and content will certainly continue in their efforts. What more can Congress be doing to help promote a free and open Internet around the world?

Answer. Thank you to you, Senator Rubio and your House counterparts for your leadership on the concurrent resolutions. As a member of the U.S. delegation to the WCIT in Dubai, I can attest that Congress's bipartisan resolution was crucial to our negotiations and sent a clear and definitive message regarding U.S. policy to states interested in the international regulation of the Internet. Codifying the resolution language would be a powerful way to continue the United States' efforts to promote an open and freedom-enhancing Internet worldwide.

Question 5a. A handful of countries, such as China and Iran, want to heavily censor the Internet content people can access inside their borders, while many other nations are simply looking for ways to generate revenue from Internet traffic that moves through their country, much in the same way they have done with voice communications for years. Are there policies the United States can and should be promoting around the globe to help other nations develop their telecommunications infrastructure, unleash the economic activity that comes with it, and thus remove their desire to use global Internet traffic as a revenue source?

Answer. Yes. Our government should educate developing nations about the importance of Internet freedom. We should stress that less regulation and taxation of Internet access results in increased investment, deployment, adoption, prosperity and freedom.

Question 6. The upcoming incentive auctions have been pitched to Congress as a market-based mechanism that would help put spectrum in the hands of those most capable of unleashing its economic potential. That was an appealing idea, and on that basis Congress authorized you to conduct them. Now there is some concern that the Commission is contemplating going beyond what will be freed up by the auctions and is considering repurposing or reallocating many more megahertz in rural areas just through repacking broadcasters and eliminating LPTV and translator service. Is your intention to deal only with what is freed up by auctions, or is your intention to reallocate as much spectrum from broadcasters to broadband providers as possible?

Answer. As of April 8, 2013, I have recused myself from all matters as I prepare to depart the Commission, so I will not be participating in future proceedings regarding the incentive auction and, in light of the numerous stakeholders involved, it would not be appropriate for me to opine on this matter.

Question 6a. Has the Commission studied the impact of reclaiming spectrum on LPTV and translator service, especially in more rural states that rely heavily on them to reach areas where no other service is available?

Answer. On September 28th, the Commission adopted a notice of proposed rulemaking initiating the implementation of the incentive auction provisions of the Middle Class Tax Relief and Job Creation Act ("Spectrum Act"). As you are aware, LPTV and translators are secondary services and such stations are displaced if they cause unacceptable interference to a full power station or other primary spectrum users. Further, the Spectrum Act does not include or protect these stations.

In the notice, the Commission recognized that LPTV and translator stations will be affected by the incentive auction and repacking process and requested input on various issues relating to these services. For instance, we seek input on voluntary channel sharing for stations and also invite comment on any measures to help ensure that this important programming continues to reach viewers. The Commission appreciates the benefits that LPTV and translator stations provide to their communities and will have to consider the best means to preserve low-power broadcast opportunities while keeping in mind the mandates and goals of the Spectrum Act.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. RICHARD BLUMENTHAL TO
HON. ROBERT M. MCDOWELL

Broadband Competition

Question 1. In 2010 the FCC stated in the National Broadband Plan that, ". . . there are reasons to be concerned about wireline broadband competition in the United States. Whether sufficient competition exists is unclear and, even if such competition presently exists, it is surely fragile."

The plan further stated that, "To ensure that the right policies are put in place so that the broadband ecosystem benefits from meaningful competition as it evolves, it is important to have an ongoing, data-driven evaluation of the state of competition," and that "additional data are needed to more rigorously evaluate broadband competition."

The Plan specifically recommended the Commission undertake a number of reforms to data collection including:

1. "[C]ollect broadband availability data at the census block level, by provider, technology and offered speed."
2. "[C]ollect data on advertised prices, prices actually paid by subscribers, plans, bundles and promotions of fixed and mobile broadband services that have material penetration among users, as well as their evolution over time, by provider and by geographic area." The Plan stated that in particular, it "is crucial that the FCC track and compare the evolution of pricing in areas where two service providers offer very high peak speeds with pricing in areas where only one provider can offer very high peak speeds."
3. "[C]ollect information related to switching barriers, such as early termination fees and contract length."

The National Broadband Plan also recommended that the Commission establish a general policy of making the data it collects available to the public, including via the Internet in a broadband data depository.

These recommendations reflect the comments of the Department of Justice, who told the Commission that it ". . . should expand its efforts to include an assessment of the nature and extent of competition in each local broadband market."

Nearly two years after the National Broadband Plan was released, the Commission issued a Notice of Proposed Rulemaking (NPRM) that encapsulated many of these recommendations. The Commission has yet to act on this NPRM.

Chairman Genachowski, Commissioners McDowell, Clyburn, Rosenworcel and Pai, do you agree with the National Broadband Plan's recommendations on the need to collect these additional broadband data?

Answer. In general, I agree that collecting more data in a targeted and reasonable way can be helpful. However, I have also previously expressed concerns that these efforts could ultimately lead to price regulation of Internet access and services.

Question 1a. Do you think the Commission, policymakers and the public have the appropriate data to determine if the Commission's competition policies are, in the words of the Department of Justice, using the appropriate "policy levers. . . to produce superior outcomes," and if not, what additional data is needed?

Answer. I have said many times before that it is imperative that the FCC looks at the whole picture when it analyzes America's broadband adoption success. First,

the FCC should avoid focusing on only whether individuals are broadband subscribers to wireline services. Increased use of wireless broadband is equally important. Second, I have previously noted that broadband subscribership numbers do not take into account “non-subscribers” who are nevertheless active broadband users through the power of unlicensed services, such as Wi-Fi.

Sports Blackouts

Question 2. Over one year ago, I wrote the FCC and requested the agency allow public comment on a petition for rulemaking asking the Commission to reexamine the Sports Blackout Rule. This rule is nearly forty years old and, along with other Federal rules and league policies, is one of many obstacles making it unreasonably difficult for fans to watch their favorite teams play.

I thank the Commission for taking my letter seriously and opening a Notice of Inquiry (NOI) to solicit comments from the public and other stakeholders. However, that docket was opened in January of 2012 and the Commission has yet to take any further action.

The response in the proceeding was overwhelming. The NOI garnered thousands of comments from consumers impacted by local sports blackouts, including elderly and disabled sports fans unable to attend live games. The NFL’s revised local blackout policy seems to have done little in the last regular season to help the most heavily impacted markets. Commenters have proposed several options, including preserving the status quo, eliminating the Sports Blackout Rule altogether, or adopting a sunset period requiring a public interest showing to renew the rule.

Chairman Genachowski, Commissioners McDowell, Clyburn, Rosenworcel and Pai, what else can the Commission do to help fans unable to watch their favorite teams compete?

Answer. As of April 8, 2013, I have recused myself from all matters as I prepare to depart the Commission. In light of the numerous stakeholders involved in the proceeding before the Commission, it would not be appropriate for me to opine on this matter. I was supportive, however, of the Media Bureau’s action, in January 2012, to seek comment on a petition requesting the elimination of the sports blackout rule.

I have always supported the periodic review of rules to determine if marketplace conditions have changed to allow for the elimination of unnecessary regulations. Reviewing this 37-year-old rule to determine if it is still necessary is constructive as the Commission continues to look for rules to streamline and modernize. As I said in January 2012, there have been significant changes in the economics and structure of professional sports and communications industries since the rule was enacted. We now live in a world with not only local broadcast stations, but also cable, satellite, the Internet and wireless, and where television and merchandizing revenues exceed ticket sales. It is appropriate for us to re-examine the rule in light of marketplace changes.

As you know, however, the Commission’s rules only prohibit multichannel video programming distributors (*i.e.*, cable and satellite providers) from carrying a sporting event in a community if it is blacked out by the local broadcast station. Thus, even if the Commission eliminates this rule, games may continue to be unavailable on television. Pursuant to contract, sports leagues often require a game to be blacked out from broadcast television if tickets to the game have not sold out. Our rules do not, and should not, affect the contractual rights of the sports leagues, broadcasters and MVPDs.

Further, I would like to note that, subsequent to the release of this public notice, the NFL relaxed their sports blackout policy. Last season, the NFL allowed the home teams to have the option of selling 85 percent of game tickets to avoid a blackout in their local TV market. Previously, teams had to sell out games or receive an exception from the league for the game to be shown on local TV.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. WILLIAM M. COWAN TO
HON. ROBERT M. MCDOWELL

Universal Service Fund

Question. Chairman Genachowski and Commissioner McDowell, my state contributes dramatically more to the USF program than we receive, which is particularly problematic because so much of western Massachusetts lacks the wired broadband and wireless infrastructure that many USF recipient states enjoy.

How will the reform of the USF program ensure that states like Massachusetts get a fair share of the subsidies the fund releases and in turn makes communications in places like the Berkshires more reliable?

Answer. Broadband deployment and adoption in all areas of our country have been priorities for me since arriving at the FCC nearly seven years ago. Furthermore, I worked closely with Senator Kerry and Congressman Markey on creative ideas to bring broadband to previously unserved areas, such as the Berkshires. In fact, several years ago, we convened a broadband summit in Northampton, MA. Today, the Berkshires enjoy more broadband connectivity than ever. While more work remains to be done, we can learn from the progress we have made thus far.

One of the goals of the USF/ICC high-cost reform order was to target universal service subsidies to areas that are truly unserved by broadband. The reform order will not result in immediate results but, hopefully, we will achieve this goal in time as the order is implemented.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. KELLY AYOTTE TO
HON. ROBERT M. MCDOWELL

Question. Commissioner McDowell, as you know, the Commission took a \$17 million budget reduction as the result of sequester. But your funding level is still larger than any appropriation since 2008. Neither spectrum auctions nor USF distribution or contribution seem to be affected. How has sequestration affected the FCC's ability to function? Where will these cuts be most felt?

Answer. Although I have received several briefings on the effects sequestration may have on the FCC's operations, I have been assured that the Commission will be able to carry out its core functions. Overall, the agency-wide budget is controlled by Chairman Genachowski and therefore I respectfully defer to him regarding additional questions. However, as for my office's budget, I have historically returned almost 40 percent of my annual office travel budget to the Treasury, on average, during my seven-year tenure at the FCC.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. DEAN HELLER TO
HON. ROBERT M. MCDOWELL

I appreciate the testimony and your candid answers during the hearing. I would like to thank you for your service on the Federal Communications Commission.

Question 1. The hearing touched on many themes that I believe the Committee should look at including process reform, the looming transition to IP and the Spectrum auction. However, an opportunity for the Chairman and the Commissioners to share what they see "over the hill" was not discussed at length. I would like to provide you with an opportunity to share what you believe are some issues that may not have been discussed at the hearing.

Answer. There are numerous issues that will require FCC attention. For example,

- The FCC's reforms of the various universal service programs will be ongoing;
- As the media market continues to change, the Commission will continue to have opportunities to modernize and eliminate rules;
- The Commission may have an opportunity to eliminate its net neutrality rules, regardless of the outcome of pending litigation, and needs to determine the fate of the Title II docket;
- Implementation of the incentive auction legislation and the attendant policies will require substantial FCC attention; and
- Overall, there will be a need to de-regulate, perhaps through legislation, as markets become more competitive and converge.

Question 2. The spectrum auction is of the utmost importance. Is the Commission going to set a target date of 2014?

What are the challenges with hitting this date?

Answer. The challenges with hitting this date are numerous. It is important to remember that the incentive auctions will, quite literally, be the most complex spectrum auctions in world history. Learning from my past experiences with the AWS-1 and 700 MHz auctions, the entire process could take the greater part of a decade. Although we want to expedite the auction process and deploy this spectrum for the benefit of Americans as quickly as possible, it is most important that the Commission ensures that the auctions are successful, both the reverse auction and the forward auction. The Commission must work in a deliberate and transparent manner, with an eye toward simplicity, humility and restraint. Failure to do so could cause unnecessary delay, hinder participation and result in unintended consequences.

For instance, attempting to implement an overly-regulatory paradigm could result in myriad delays, including additional time to write and release the order and consider petitions for reconsideration. Additionally, the complexity of this auction coupled with the repacking of broadcast stations increases the opportunities for legal challenges, including injunctions and stays. Any regulatory efforts to micromanage the wireless market, such as adopting spectrum caps and reserving space in the 600 MHz band for the world's first nationwide unlicensed spectrum band, are likely to increase the risks of litigation and delay even further. Such attempts tend to result in uncertainty, inhibit investment and may reduce the pool of auction participants. This unwelcome and unintended scenario would jeopardize the main goals of the spectrum law: putting more spectrum into the hands of consumers as quickly as possible; maximizing revenue at auction; and funding efforts to build the nationwide broadband public safety network mandated by Congress.

Question 3. The Commission's spectrum incentive auction process has the potential for channel reassignment. Nevada has over 300 translators and low power TV stations, any repacking will put a significant burden on these stations. Is the FCC taking this into consideration? Can the Commission preserve viewer access to local channels and still hit the target of 2014 for the auction to take place?

Answer. On September 28, the Commission adopted a notice of proposed rulemaking initiating the implementation of the incentive auction provisions of the Middle Class Tax Relief and Job Creation Act ("Spectrum Act"). As you are aware, LPTV and translators are secondary services and such stations are displaced if they cause unacceptable interference to a full power station or other primary spectrum users. Further, the Spectrum Act does not include or protect these stations.

In the notice, the Commission recognized that LPTV and translator stations will be affected by the incentive auction and repacking process and requested input on various issues relating to these services. For instance, we seek input on voluntary channel sharing for stations and also invite comment on any measures to help ensure that this important programming continues to reach viewers. The Commission appreciates the benefits that LPTV and translator stations provide to their communities and will have to consider the best means to preserve low-power broadcast opportunities while keeping in mind the mandates and goals of the Spectrum Act.

Question 4. According to the National Broadband Plan wireless backhaul is "critical to the deployment of wireless broadband and other wireless services," particularly "when fiber is not proximate to a cell site." I understand that the existing wireless backhaul networks face a number of regulatory and technological constraints that limit their potential capacity. These independently-powerable services are also important to undergird FirstNet, the national first responder network. How is the FCC working to speed the deployment of wireless backhaul services in new frequency bands?

Answer. The Commission has taken actions to facilitate the deployment of wireless backhaul services and ensure that sufficient microwave spectrum is available to meet current and future demand for backhaul. In fact, in 2010, the Commission opened a proceeding to review its rules to remove regulatory barriers to the use of microwave spectrum for backhaul. This docket remains open.

In August 2011, the Commission released an order implementing rules to facilitate the deployment of wireless backhaul.¹ In particular, the Commission provided backhaul operators access to an additional 650 megahertz of spectrum. This spectrum (the 6875–7125 MHz and 12700–13100 MHz bands) is shared with Fixed and Mobile Broadcast Auxiliary Service (BAS) and Cable TV Relay Service (CARS) providers.

In August 2012, the Commission removed regulatory barriers to make better use of microwave spectrum and provide additional flexibility to enable licensees to reduce operational costs and facilitate the use of backhaul in rural areas. For instance, the Commission revised rules to allow smaller antennas in the 6, 18 and 23 GHz Bands, which will reduce costs.² At this time and again in October 2012, the FCC took steps to modify and update technical rules to promote and hasten deploy-

¹Amendment of Part 101 of the Commission's Rules to Facilitate the Use of Microwave for Wireless Backhaul and Other Uses and to Provide Additional Flexibility to Broadcast Auxiliary Service and Operational Fixed Microwave Licensees, *et al.*, WT Docket No. 10–153, *et al.*, *First Report and Order, Further Notice of Proposed Rulemaking, and Memorandum Opinion and Order* (2011).

²Amendment of Part 101 of the Commission's Rules to Facilitate the Use of Microwave for Wireless Backhaul and Other Uses and to Provide Additional Flexibility to Broadcast Auxiliary Service and Operational Fixed Microwave Licensees, *et al.*, WT Docket No. 10–153, *et al.*, *Second Report and Order, Second Further Notice of Proposed Rulemaking, Second Notice of Inquiry, Order on Reconsideration, and Memorandum Opinion and Order* at 3 (2012).

ment in the microwave bands.³ Furthermore, the Commission also imposes buildout requirements to ensure that networks are deployed promptly to provide service to Americans.

Question 4a. What is the current state of wireless backhaul deployment in the 24 and 39 GHz bands? Has any company tried to develop new technology that is optimized for wireless backhaul in these new frequency bands?

Answer. Currently, most wireless backhaul deployment has occurred in the 6 GHz, 11 GHz, 18 GHz and 23 GHz bands. Deployment of wireless backhaul services in the 24 GHz and 39 GHz bands was delayed because, upon request of licensees, the Commission extended the buildout for 24 GHz and 39 GHz licenses to allow, in part, coordination with the construction of 700 MHz and AWS-1 networks.

In reviewing the Commission's records for the three largest 24 GHz and 39 GHz licensees, they reflect that IDT Spectrum and Spectrum Holding Technologies, which hold 742 and 199 39 GHz licenses, respectively, have reported that they have met the buildout requirements. Fibertower, which held 103 of the 111 issued 24 GHz licenses and 634 39 GHz licenses, has constructed 48 of its 737 licenses.⁴ Based on the fact that licenses have been constructed in both the 24 GHz and 39 GHz bands, it appears that technology and equipment has been developed to deploy wireless backhaul using these frequencies.

Question 5. The FCC has moved to reclaim wireless backhaul spectrum in the 24 and 39 GHz range from a number of wireless backhaul providers despite the providers request for additional time to complete their roll-out.

If the FCC ultimately reclaims spectrum in the 24 and 39 GHz range, how long will it take, including the necessary legal proceedings, for a new wireless backhaul provider to build-out a backhaul service with the seized spectrum?

Answer. As the question seeks information regarding the time-frame of potential proceedings before the Commission, I defer to the Chairman who controls the FCC's agenda.

Question 6. In at least one case on Appeal to the Full FCC Commission, a significant wireless backhaul provider, from whom the FCC seized spectrum, has proposed an aggressive build-out plan that will have its wireless backhaul network up and running in 18 months. If the FCC were to prioritize the rollout of wireless backhaul services, would it be more expedient to grant an 18 month extension and allow a planned expansion to move forward or can the FCC clear the spectrum and find another company to build-out the necessary wireless backhaul in less than 18 months?

Answer. This question seeks comment on a particular proceeding in which a specific licensee requests that the Commission overturn a bureau decision denying an extension of the deadline to construct certain licenses and provide substantial service. The bureau decision resulted in the automatic termination of a large number of 24 GHz and 39 GHz licenses. Further, it is my understanding that the particular licensee has filed for Chapter 11 bankruptcy relief. As of April 8, 2013, I have recused myself from all matters as I prepare to depart the Commission. In light of the numerous stakeholders involved in the proceedings before the Commission and bankruptcy court, it would not be appropriate for me to opine on this matter.

Question 7. Will the FCC work to ensure that it takes all appropriate actions, including reviewing prior staff-driven efforts intended to strip existing wireless backhaul providers of their spectrum, to speed the build-out of needed wireless backhaul services?

Answer. As of April 8, 2013, I have recused myself from all matters as I prepare to depart the Commission, so I will not be participating in future proceedings regarding wireless backhaul services.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BARBARA BOXER TO
HON. MIGNON L. CLYBURN

Question 1. On November 30, 2012, I along with eight of my colleagues sent a letter urging you not to relax the Commission's cross-ownership rules without respond-

³Amendment of Part 101 of the Commission's Rules to Facilitate the Use of Microwave for Wireless Backhaul and Other Uses and to Provide Additional Flexibility to Broadcast Auxiliary Service and Operational Fixed Microwave Licensees, *et al.*, WT Docket No. 10-153, *et al.*, Order, FCC 12-122 (2012).

⁴The Wireless Telecommunications Bureau held that 689 of FiberTower's licenses automatically terminated for failure to buildout and meet the substantial service requirement. See FiberTower Spectrum Holdings LLC, *Memorandum Opinion and Order*, 27 FCC Rcd 13562 (WTB 2012). Pursuant to a bankruptcy court injunction, these licenses cannot be reassigned until FiberTower exhausts its appeal rights.

ing to our concerns about the low levels of female and minority ownership of broadcast radio and television stations. In February, the Commission announced that it would be delaying its vote on the new rules as it awaits the results of a study by the Minority Media and Telecommunications Council regarding the effects of cross-ownership rules on minority ownership and newsgathering.

Given the fact that MMTC's study is to be conducted by a broadcast industry analyst who is backed by the newspaper and broadcast industry associations and has publicly supported a relaxation of the cross-ownership rules, do you believe the study represents an independent and impartial analysis of the impact of cross ownership on minority owners?

Answer. MMTC's study will be used to inform our current draft Order, and my hope is that the study's results will give the FCC some indication as to whether certain forms of media consolidation will negatively impact female and minority owners or increase barriers to entry in acquiring and maintaining a broadcast or newspaper entity.

Question 1a. Do you believe the study's methodology will provide the kind of analysis required by the Third Circuit Court of Appeals when it ordered the Commission to provide better justification for proposed diversity efforts?

Answer. Throughout our comment periods leading up to the release of the Chairman's draft Order, I have repeatedly expressed concern regarding our need to address the issues raised in the Third Circuit's most recent decision. Should the some or all of the results of the MMTC study satisfy the Court's concerns, I feel we should consider augmenting our Order with that data.

Question 1b. Does the Commission believe that radio contributes to viewpoint diversity?

Answer. The Chairman's draft Order is skeptical on that point, finding that TV stations and newspapers are the more popular resource for news and information. I am less certain of that claim, and look forward to potential further insight from the MMTC study.

Question 1c. If the Commission were to conclude that radio does not contribute to diversity, how would that decision undermine future efforts to ensure that radio ownership is as diverse as the country it serves?

Answer. I am not ready to draw that conclusion. I feel that radio provides entertainment, news, and viewpoints that are just as diverse and unique as television and other offerings, and I am hesitant to take any action that could harm diverse radio providers. However, I have looked over the comments that were submitted which call for relaxation of the newspaper-radio cross-ownership ban, and how such combinations could inject much-needed resources into both sides of a consolidated entity. I intend to further examine this possibility with our Media Bureau during the coming weeks.

Question 2. The Commission has acknowledged that rural consumers are experiencing significant problems receiving long distance or wireless calls on their landline telephones. The problem appears to be attributable to the use of IP-based least-cost routing providers.

What does the Commission plan to do to ensure that such interconnection and reliability problems do not become more prevalent as our Nation's telephone networks transition to wireless and IP-based services?

Answer. The Commission has been actively looking into these issues and it's something that I'm very concerned about. I attended the Commission's hearings focusing on the aftermath of Hurricane Sandy and the Commission has launched proceedings to examine the reliability of networks to determine whether actions should be taken. In addition, the FCC's Technology Transition Policy Task Force is focused on these issues and how to update our rules for modern networks. The Commission has also asked the Technological Advisory Council (TAC) to provide recommendations to the Commission on how to improve resiliency and reliability of networks. Finally, the Commission launched a proceeding regarding the concerns of call completion and quality of calls to rural areas. I look forward to reviewing the record developed in these proceedings as well as the recommendations from the TAC and Task Force.

Question 2a. In light of the recent complaint filed in Federal court by VoIP providers claiming that the Commission lacks authority under the Communications Act to apply the no-blocking rule to VoIP calls, is additional authority needed from Congress to address the rural call completion problem?

Answer. I believe that the Commission has authority to impose its proposed rural call completion rules on VoIP providers. We propose to do so in the pending NPRM, which will provide the Commission additional information from providers about

their call completion rates and incentivize them to improve their call completion performance.

The Commission relied on Sections 201(b) and 202(a) of the Communications Act in the pending NPRM. Call routing practices that lead to rural call termination and quality problems may violate the prohibition against unjust and unreasonable practices in section 201(b), or may violate carriers' duty under section 202(a) to refrain from unjust or unreasonable discrimination in practices, facilities, or services. The Commission sought comment on applying its proposed rules to VoIP providers through the exercise of its ancillary authority to the extent that VoIP services are not telecommunications services regulated under Title II of the Act, on the grounds that such requirements would be necessary for the Commission to carry out its section 201(b) and 202(a) obligations with regard to carriers.

As you know, the Commission has been actively working to address rural call completion for several years. Despite our best efforts we continue to hear about call completion issues from rural carriers. This is a significant issue with real-world consequences for rural economies and public safety. To the extent that providers are not following our call completion requirements, I have encouraged the Chairman and our Enforcement Bureau to address these issues swiftly, and I am supportive of concluding our ongoing rulemaking quickly to provide the Commission additional information from providers about their call completion rates so that we may better enforce the requirements of the Act.

Question 3. More than half of U.S. broadband subscribers are subject to some form of bandwidth cap or usage-based pricing. Experts have pointed out that broadband caps are inefficient for addressing network congestion and may, instead, have anti-competitive effects. What does the Commission plan to do to ensure that caps do not undermine access to affordable, high-speed broadband?

Answer. The broadband marketplace continues to evolve, and the Commission is monitoring the delivery of broadband service to consumers, as required by Section 706 of the Telecommunications Act, for instance. As part of that effort, studying the impact of speeds delivered, data caps, and other terms and conditions is a useful endeavor for us to observe the changes that are occurring, including how those changes impact the adoption and use rate of broadband and the benefits that ensue as a result. Such review includes the competitive effects of services offered on the Internet, including whether the terms and conditions of that offering, have a limiting effect on innovative services that may compete directly with incumbents.

To date, my observation is that the marketplace is evolving, and we should continue monitoring that evolution and the impact it has on the deployment, adoption and use of broadband by consumers; and we should address complaints about unfair practices as quickly as possible so as to ensure continued innovation and investment in broadband. The Commission currently is considering an expansion of its Section 706 review that aligns with our goals of promoting the deployment, adoption and use of broadband by all Americans.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. FRANK R. LAUTENBERG TO
HON. MIGNON L. CLYBURN

Question. Nineteen states currently restrict local governments' ability to offer broadband, even in areas where companies won't make it available or affordable. I have previously introduced bills that would prevent states from restricting municipal broadband, and I am considering reintroducing this legislation. Do you agree that states should not be permitted to restrict municipalities from offering broadband to their residents?

Answer. Yes. The National Broadband Plan ("NBP") recommended that Congress clarify that State, regional, and local governments should not be restricted from building their own broadband networks. When providers cannot meet the needs of local communities, the Plan recommends that State, regional, and local entities should be able to respond accordingly, as they were able to do when municipal governments distributed electricity to thousands of rural communities during the 20th century. Unfortunately, this issue has not been addressed by Congress, and some broadband industry members continue to encourage state legislatures to restrict municipalities in this manner, with South Carolina and North Carolina passing restrictive legislation since the NBP. Indeed, a recent effort in Georgia failed, but not without significant work by opponents to defeat the measure. I have spoken out several times and encouraged state legislatures to ignore these misguided efforts, but action from Congress to settle this matter would be welcome.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. CLAIRE McCASKILL TO
HON. MIGNON L. CLYBURN

Question 1. Chairman Genachowski and I have both written to the Federal Aviation Administration (FAA) encouraging the agency to revise its rules to allow for the expanded use of electronic devices during flight. The FAA has established an Aviation Rulemaking Committee (ARC) to look at possible changes to the rules, and the FCC has a representative on that committee, which will make recommendations to the FAA Administrator this summer.

I am convinced, and I think most Americans agree, any safety concerns that might have once existed to justify the current rules have been addressed by advances in technology both on the airplane itself and in consumer electronics. While I recognize the decision is not one that rests with the FCC, as leaders on technology issues—and as one of only three government agencies with a seat at the table, and the only not under the Department of Transportation—I want to know if all of the Commissioners share those views on this issue.

Given Chairman Genachowski's stated position on the issue, can I trust that you will be directing the FCC's representative on the ARC to convey the opinion of the Commission that the rules should be changed and work to aggressively push the FAA to do so?

Answer. Yes. I look forward to the recommendations from the ARC and will work with the FAA on next steps as appropriate. I hope that we people can find a proper way to permit people to use devices, such as e-readers, from gate to gate.

Question 2. Although the FCC's reforms to the Universal Service Fund's (USF) Lifeline program through its February 2012 order were much needed, and attempted to address duplicative Lifeline support, ineligibility, deceptive marketing and other concerns raised in my December 2011 letter to you on this topic, the reforms appear to have had little effect in limiting the rapid growth of the program.

While I commend the Commission for its attempt to rein in the rapid growth of the Lifeline program and address the problems you inherited when the program was expanded to include wireless providers without any additional safeguards to prevent waste, fraud and abuse, even with the reform order in place the Lifeline program grew by 26 percent (\$445 million) last year. What additional action is the Commission considering to address waste, fraud and abuse in the Lifeline program?

Specifically, would the Commission consider suspending new enrollment in the program while the reforms continue to be implemented?

Answer. In Section 254 of the Communications Act, Congress articulated national universal service goals, including that services should be available at "affordable" rates and that "consumers in all regions of the nation, including low-income consumers . . . should have access to telecommunications and information services." The Lifeline program fulfills this intended purpose of the USF, and in the Commission's *Lifeline Reform Order* in 2012, we found that Lifeline has been instrumental in increasing the availability of phone service to low-income consumers. Not only had many low-income consumers stated in our record that without a Lifeline subsidy, they would be unable to afford such service, they also noted the hardships they would face without access to phone service, such as the lack of access to 911, job opportunities, and social services.

In fact, in our *Lifeline Reform Order* the Commission stated that telephone subscribership among low-income Americans has grown significantly since the Lifeline program was initiated in 1984, in response to the break-up of AT&T and the Commission's action to ensure the availability and affordability of local phone service would be addressed for low-income families through the implementation of the Lifeline program. Eighty percent of low-income households had telephone service in 1984, compared to 95.4 percent of non-low-income households. However, since the inception of Lifeline, the gap between telephone penetration rates for low-income and non-low-income households has narrowed from about 12 percent in 1984 to 4 percent in 2011. In fact, states that provide higher monthly Lifeline subsidies per household exhibited greater growth in phone subscribership from 1997 to the present. The Commission also found that Lifeline had increased the penetration rate of voice service by keeping low-income consumers connected to the network, thereby increasing the network effects (*i.e.*, the more consumers who are on the network increasing the benefits for all consumers). Moreover, the additional money invested in USF through the high-cost, E-rate, and rural healthcare mechanisms achieve more benefits for all of society when low-income consumers can access the networks through the Lifeline program.

If a cap were to be imposed, then consumers who are otherwise qualified may lose or not gain access to the networks. Balancing the statutory objectives with the policy goal of all consumers to access the networks and benefit from them, our reforms

focused on how we can address the operation of the program and make it more efficient and effective without harming qualified low-income consumers' access to the networks. Access to payphones has significantly declined—currently approximately only 500,000 payphones remain in the U.S., and approximately 1.5 million have been displaced as the marketplace has changed due to the increased availability of mobile phones. Accordingly, the Commission set a savings target for the Lifeline reforms of \$200 million, which it met during the first year, and we anticipate that over \$400 million will be saved this year, and up to \$2 billion by the end of 2014.

Indeed, it is apparent that the reforms that focused on ensuring that consumers are qualified for the program and that providers are adhering to the program's rules are working. The overall number of consumers in Lifeline has dropped significantly since the implementation of the new certification and usage requirements and the first annual verification process—from 15.7 million to 13.2 million households. As a result, Lifeline subscribership is no longer growing, and every new subscriber must demonstrate eligibility at sign up, in addition to the many other reforms that have curbed the growth in the program.

Question 2a. Would the Commission consider capping the program?

Answer. See response immediately above.

Question 3. We are quick in Washington to create new programs but what we don't do often enough is reevaluate those programs to make sure they're still needed. The FCC created the Lifeline program nearly 30 years ago to make sure local phone service was still affordable for low-income Americans following the breakup of AT&T in 1984. Because technology has changed and competition has grown, basic telecommunications services are as affordable as ever. I am wondering if the Commission has recently looked at whether the Lifeline program is even still necessary, and if not if you would be willing to do so?

Answer. As discussed above, the *Lifeline Reform Order* fully considered the benefits of the program and balanced the need for the program with its reform efforts to ensure that the program would be more efficient and effective. In its review, the Commission found that the Lifeline-eligible population had increased significantly over the past decade. Since 1999, real median household income in the U.S. has declined by 7.1 percent, while households at the bottom of the income scale have seen their income decline by 12.1 percent. In 2010, 46.2 million Americans were living in poverty, defined as living at or below the benchmark established in the Federal Poverty Guidelines, compared to 31.6 million in 2000. Since we published the *Lifeline Reform Order*, the Census Bureau has reported an additional 1.5 percent decline in median income from 2010 to 2011. Minority populations have fared even worse; for example African Americans experienced a decrease of 2.7 percent. Thus, the evidence we have indicates that this program is still needed and that without it, more consumers would be disconnected from the networks. A monthly subsidy of \$9.25 per month per family ensures that they can have access to 911, job opportunities, social services, and daycare and school contact. Without it, I believe low-income families would face even more hardships than they do today. As such, the Lifeline program continues to assist us in fulfilling the statutory requirements of universal service that Congress set forth for the Nation in Section 254.

Question 4. In order to keep up with the demand for spectrum, many in the private-sector believe efforts need to be taken to clear some of the federally-occupied spectrum for commercial use, most significantly spectrum currently occupied by the Department of Defense. Chairman Genachowski and I have discussed this issue but I am interested in the views of all of the commissioners.

With the exponential rise in demand for mobile broadband services, we need to look at all potential resources for spectrum repurposing—including Federal Government users. The GAO recently reported that the total percentage of the most highly-valued spectrum exclusively or predominantly used by the Federal Government is as high as 57 percent. Given Federal agency budgets, many of these systems are not up-to-date and thus operate inefficiently, and some Federal uses could be served by commercial mobile providers. Are there specific instances in which you believe Federal spectrum could be operated more efficiently?

Answer. Most parties would probably agree that certain systems that were designed and installed as long as thirty years ago could use spectrum more efficiently with today's technologies. However, the Federal agencies advise that they do not have the budget to conduct the research and development for replacing old technologies with more efficient ones. The FCC is not in a position to identify particular systems that can or should use spectrum more efficiently. However, we believe it is important to understand the assumptions that underlie current spectrum use and whether these assumptions might be modified to allow agencies to accomplish their

missions using less spectrum in ways that create opportunity and real value for other services either through reallocation or sharing.

Question 5. In addition to this Committee I also serve on the Armed Services Committee. I have started to look at ways we can incentivize Federal agencies—including the Department of Defense—to clear or share spectrum, to free up more spectrum for commercial auction. Based on your experience working with Federal spectrum users, what ideas can you offer for creating such incentives?

Answer. I believe it would be helpful to empower the Department of Defense to offer access to its spectrum through auctions either through reallocations or sharing, with a share of the proceeds used to fund other funding or program priorities, working of course with the Congress. For example, this would empower the Department of Defense to determine whether it might auction part of its spectrum to reduce or eliminate furloughs.

Question 6. Last year Congress passed a Rubio-McCaskill resolution, S.Con.Res. 50, stating that Internet infrastructure and content should remain free from international regulation. Members of the U.S. delegation to the ITU conference in Dubai have indicated that Congress sending a clear message on the issue was helpful in their negotiations and that our efforts on this issue should continue, especially since those nations that want greater regulation of Internet infrastructure and content will certainly continue in their efforts. What more can Congress be doing to help promote a free and open Internet around the world?

Answer. Though the Department of State heads U.S. participation in international meetings, the Federal Communications Commission is an expert agency and member of U.S. delegations to many international telecommunications meetings. In that capacity, at the International Telecommunication Union's (ITU) World Conference on International Telecommunications (WCIT) in Dubai last December, we witnessed the benefit of strong bipartisan support from the U.S. Senate in the form of S. Con. Res. 50. Such unity of purpose going forward as the United States seeks to promote a free and open Internet will continue to be helpful.

Question 7. A handful of countries, such as China and Iran, want to heavily censor the Internet content people can access inside their borders, while many other nations are simply looking for ways to generate revenue from Internet traffic that moves through their country, much in the same way they have done with voice communications for years. Are there policies the United States can and should be promoting around the globe to help other nations develop their telecommunications infrastructure, unleash the economic activity that comes with it, and thus remove their desire to use global Internet traffic as a revenue source?

Answer. The discussions at the WCIT, in Dubai, highlighted how critical it is to work with developing countries and highlight the benefits of the Internet and how to achieve those benefits.

We are working with the U.S. State Department and other agencies to continue outreach efforts that focus on promoting an enabling environment for broadband development that creates opportunities for the private sector to invest in innovative technologies. For example, the United States has encouraged countries to adopt transparent policy and legal frameworks; open telecommunications markets to competition; adopt licensing and taxation reforms; establish transparent universal service programs to support telecommunications instead of subsidies from international services; and encourage the efficient and innovative use of spectrum for mobile broadband. We have and will continue to emphasize in our work with developing countries and others that regulations that seek to control revenue flows will hinder investment and impede broadband growth. There are many opportunities over the next several months to advance these outreach efforts, including at the upcoming ITU's World Telecommunications Policy Forum in May, the ITU's Global Symposium for Regulators in August, and bilateral meetings with individual countries.

Question 8. The upcoming incentive auctions have been pitched to Congress as a market-based mechanism that would help put spectrum in the hands of those most capable of unleashing its economic potential. That was an appealing idea, and on that basis Congress authorized you to conduct them. Now there is some concern that the Commission is contemplating going beyond what will be freed up by the auctions and is considering repurposing or reallocating many more megahertz in rural areas just through repacking broadcasters and eliminating LPTV and translator service.

Is your intention to deal only with what is freed up by auctions, or is your intention to reallocate as much spectrum from broadcasters to broadband providers as possible?

Answer. The Commission has and will continue to run a market-driven process focused on providing opportunities for broadcasters in all markets to participate in the incentive auction.

A successful auction will result in nationwide contiguous blocks of spectrum for commercial wireless which will enable significant economic growth and consumer benefits in all areas, urban and rural as well as a vibrant broadcast market that continues to reach all.

Question 9. Has the Commission studied the impact of reclaiming spectrum on LPTV and translator service, especially in more rural states that rely heavily on them to reach areas where no other service is available?

Answer. Congress envisioned that full power TV stations and Class A stations that choose not to participate would likely need to be repacked, so the Spectrum Act provides relocation funding and requires the Commission to make reasonable efforts to preserve coverage area and population served.

Congress chose not to provide special protection for Low power TV and TV translators, which are secondary services.

However, in the Commission's NPRM recognized the important service low power stations provide, particularly in rural areas, and sought comment on measures to ensure their programming continues to reach viewers—such as channel sharing, access to multicast channels of full power stations, and modifications to our displacement application process.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. RICHARD BLUMENTHAL TO
HON. MIGNON L. CLYBURN

Broadband Competition

Question 1. In 2010 the FCC stated in the National Broadband Plan that, “. . . there are reasons to be concerned about wireline broadband competition in the United States. Whether sufficient competition exists is unclear and, even if such competition presently exists, it is surely fragile.”

The plan further stated that, “To ensure that the right policies are put in place so that the broadband ecosystem benefits from meaningful competition as it evolves, it is important to have an ongoing, data-driven evaluation of the state of competition,” and that “additional data are needed to more rigorously evaluate broadband competition.”

The Plan specifically recommended the Commission undertake a number of reforms to data collection including:

1. “[C]ollect broadband availability data at the census block level, by provider, technology and offered speed.”
2. “[C]ollect data on advertised prices, prices actually paid by subscribers, plans, bundles and promotions of fixed and mobile broadband services that have material penetration among users, as well as their evolution over time, by provider and by geographic area.” The Plan stated that in particular, it “is crucial that the FCC track and compare the evolution of pricing in areas where two service providers offer very high peak speeds with pricing in areas where only one provider can offer very high peak speeds.”
3. “[C]ollect information related to switching barriers, such as early termination fees and contract length.”

The National Broadband Plan also recommended that the Commission establish a general policy of making the data it collects available to the public, including via the Internet in a broadband data depository.

These recommendations reflect the comments of the Department of Justice, who told the Commission that it “. . . should expand its efforts to include an assessment of the nature and extent of competition in each local broadband market.”

Nearly two years after the National Broadband Plan was released, the Commission issued a Notice of Proposed Rulemaking (NPRM) that encapsulated many of these recommendations. The Commission has yet to act on this NPRM.

Chairman Genachowski, Commissioners McDowell, Clyburn, Rosenworcel and Pai, do you agree with the National Broadband Plan's recommendations on the need to collect these additional broadband data? Do you think the Commission, policy-makers and the public have the appropriate data to determine if the Commission's competition policies are, in the words of the Department of Justice, using the appropriate “policy levers. . . to produce superior outcomes,” and if not, what additional data is needed?

Answer. The broadband marketplace continues to evolve, and the Commission is monitoring the delivery of broadband service to consumers, as required by Section 706 of the Telecommunications Act, for instance. As part of that effort, studying the impact of speeds delivered, data caps, and other terms and conditions is a useful endeavor for us to observe the changes that are occurring, including how those changes impact the adoption and use rate of broadband and the benefits that ensue as a result. Such review includes the competitive effects of services offered on the Internet, including whether the terms and conditions of that offering, have a limiting effect on innovative services that may compete directly with incumbents.

To date, my observation is that the marketplace is evolving, and we should continue monitoring that evolution and the impact it has on the deployment, adoption and use of broadband by consumers; and we should address complaints about unfair practices as quickly as possible so as to ensure continued innovation and investment in broadband. The Commission currently is considering an expansion of its Section 706 review that aligns with our goals of promoting the deployment, adoption and use of broadband by all Americans.

Sports Blackouts

Question 2. Over one year ago, I wrote the FCC and requested the agency allow public comment on a petition for rulemaking asking the Commission to reexamine the Sports Blackout Rule. This rule is nearly forty years old and, along with other Federal rules and league policies, is one of many obstacles making it unreasonably difficult for fans to watch their favorite teams play.

I thank the Commission for taking my letter seriously and opening a Notice of Inquiry (NOI) to solicit comments from the public and other stakeholders. However, that docket was opened in January of 2012 and the Commission has yet to take any further action.

The response in the proceeding was overwhelming. The NOI garnered thousands of comments from consumers impacted by local sports blackouts, including elderly and disabled sports fans unable to attend live games. The NFL's revised local blackout policy seems to have done little in the last regular season to help the most heavily impacted markets. Commenters have proposed several options, including preserving the status quo, eliminating the Sports Blackout Rule altogether, or adopting a sunset period requiring a public interest showing to renew the rule.

Chairman Genachowski, Commissioners McDowell, Clyburn, Rosenworcel and Pai, what else can the Commission do to help fans unable to watch their favorite teams compete?

Answer. I too have heard from aggrieved fans, and have met with both the Sports Fans Coalition and the NFL. I have also discussed the issue with the Chairman's office, and will continue to monitor any incoming comments pursuant to our Notice of Inquiry of January, 2012.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. WILLIAM M. COWAN TO
HON. MIGNON L. CLYBURN

Media Ownership and Diversity

Question 1. Commissioner Clyburn, I know that you have expressed both concern for the lack of minority media ownership and support for acquiring additional data to ensure that any relaxation of existing media ownership rules do not further diminish the diversity of voices in our media.

Can you talk about the unique role that minority media plays in minority communities, as well as the study that the Minority Media Telecommunications Council is commissioning to study the potential effects of relaxing the rules on minority ownership and minority communities?

Answer. As the former publisher of a small newspaper that existed to provide news and information to African-Americans, I am keenly aware of the need for a variety of voices and viewpoints in diverse communities—ones that can be trusted and relied upon by individuals in neighborhoods small and large. Sadly, a large percentage of these entities are struggling financially, and many no longer exist. This is due, I am told, to a lack of access to capital, from which stems the inability to compete with larger newsgathering operations.

That is why I view any proposals allowing media consolidation with a careful eye, as the ability of a TV station and a newspaper to join forces could further squeeze smaller content providers out of their respective markets. I am thus anxious to see the results of MMTC's study, and to learn if any insight can be gleaned into the potential negative impacts of the loosening of our rules.

Prison Phone Rates

Question 2. Commissioner Clyburn, the FCC released a Notice of Proposed Rule-making to lower interstate calling rates for inmates and their families at the end of last year. I understand you have been a champion for the FCC taking such action based on two long-standing petitions seeking relief from the Commission for almost a decade.

Where is the FCC in the process of reviewing the record, and when do you expect the Commission to take action to lower rates where they are not just and reasonable?

Answer. Thank you for your question. Yes, you are absolutely correct that my views of the high rates families must pay to stay connected to their loved ones in prison are concerning for a number of reasons, but most especially because of the overall societal cost. Numerous studies show that recidivism rates are reduced when incarcerated individuals stay connected to their family and friends. Often the telephone plays a crucial role for that connection when so many are incarcerated far from home, and it is difficult for families to visit in person.

By lowering prison phone rates we can better connect families, most of who are low-income, and help lower recidivism rates. To that end, I am committed to completing the review of the prison phone rate record that the Commission has received. Comments were filed in March, and reply comments were due in the proceeding on April 22. It is my hope that the Chair of the Commission will devote the Commission's resources to conclude the review of the record and offer an Order for consideration and vote by the full Commission as soon as possible now that the record has closed.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. KELLY AYOTTE TO
HON. MIGNON L. CLYBURN

Question 1. Commissioner Clyburn, very few would dispute that we have a significant spectrum crunch. As I have stated, we clearly have a natural resource with the Federal Government, but that cannot be the entire solution. What is your solution for creating a spectrum pipeline?

Answer. The FCC realizes that we must look for opportunities across all bands and are doing just that. For example, we recently reallocated 40 megahertz of non-federal spectrum in the S-band from mobile satellite service to terrestrial wireless service and we modified our rules to enable deployment of mobile services in 20 megahertz of spectrum allocated for wireless communications services. We have also proposed to repurpose a portion of the TV broadcasting spectrum for wireless broadband through voluntary incentive auctions.

The GAO recently reported that the total percentage of the most highly-valued spectrum exclusively or predominantly used by the Federal Government is as high as 57 percent. Therefore our search for spectrum must necessarily include potential reallocation or sharing of Federal spectrum as well. This past summer, the President's Council of Advisors on Science and Technology (PCAST) issued a report that presented proposals to promote more efficient uses of spectrum. One recommendation was to promote sharing of certain bands between commercial and Federal licensees. This past December, the Commission adopted a Notice of Proposed Rule-making in the 3.5 GHz Federal band to promote this type of sharing. We are also working with the NTIA and all stakeholders to study potential access to Federal spectrum at 1755–1850 MHz. In sum, we have been moving spectrum into the pipeline and are continuing to work to identify other opportunities to keep the pipeline flowing in the future. The Commission's 2012 Voluntary Incentive Auction NPRM recognized the important service low power stations provide, particularly in rural areas, and sought comment on measures to ensure their programming continues to reach viewers—such as channel sharing, access to multicast channels of full power stations, and modifications to our displacement application process.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. DEAN HELLER TO
HON. MIGNON L. CLYBURN

I appreciate the testimony and your candid answers during the hearing. I would like to thank you for your service on the Federal Communications Commission.

Question 1. The hearing touched on many themes that I believe the Committee should look at including process reform, the looming transition to IP and the Spectrum auction. However, an opportunity for the Chairman and the Commissioners to share what they see “over the hill” was not discussed at length. I would like to

provide you with an opportunity to share what you believe are some issues that may not have been discussed at the hearing.

Answer. The Commission should try to resolve, as soon as possible, the lack of interoperability in the lower 700 MHz band. Throughout the history of the mobile wireless industry, whenever it appeared that a lack of interoperability might arise with regard to a spectrum band the Commission was about to allocate for mobile wireless service, the FCC has either issued an order mandating interoperability, as it did in the 1981 Cellular Report and Order, or strongly instructed the industry that it expects consumer equipment to operate over the entire range of that spectrum band. However, the lower 700 MHz band is the only spectrum band the Commission has allocated that lacks interoperability this is preventing many American consumers, such as rural customers who subscribe to service from companies who won licenses in the A Block of the lower 700 MHz band, from enjoying the access to this innovation that other Americans can enjoy. The record is now complete and I hope the Commission staff can move quickly towards a decision that finds a cost effective solution to achieving interoperability in this band if the industry fails to reach consensus soon.

The Commission should also continue to work expeditiously to conclude pending proceedings that seek to implement the specific mandates of the goals of the Communications and Video Accessibility Act.

The FCC unanimously adopted a Notice of Proposed Rulemaking to consider lowering the cost of inmate calling services in December 2012. This Notice was the result of two longstanding Petitions for Rulemaking filed by inmates and their families complaining that the calling rates are excessive. Given that telephone contact is important for families to maintain contact which helps reduce recidivism rates, and the overall prison costs to society, and that most families paying these phone rates are low-income, I believe the Commission should quickly review the record, which just closed on April 22, and issue a decision in this proceeding.

We must move forward with our quadrennial review of the FCC's media ownership rules in a way that leaves no stone unturned in assessing the potential negative impacts that media consolidation could have on female and minority owners of broadcast properties.

Question 2. The spectrum auction is of the utmost importance. Is the Commission going to set a target date of 2014? What are the challenges with hitting this date?

Answer. We anticipate adopting an order in the incentive auction proceeding in 2013 and conducting that auction in 2014. The Commission's central goal is to repurpose the maximum amount of spectrum for flexible licensed and unlicensed use in order to unleash investment and innovation, benefit consumers, drive economic growth, and enhance our global competitiveness, while at the same time enabling a healthy, diverse broadcast television industry.

Question 3. The Commission's spectrum incentive auction process has the potential for channel reassignment. Nevada has over 300 translators and low power TV stations, any repacking will put a significant burden on these stations. Is the FCC taking this into consideration? Can the Commission preserve viewer access to local channels and still hit the target of 2014 for the auction to take place?

Answer. The Commission's 2012 Voluntary Incentive Auction NPRM recognized the important service low power stations provide, particularly in rural areas, and sought comment on measures to ensure their programming continues to reach viewers—such as channel sharing, access to multicast channels of full power stations, and modifications to our displacement application process.

Question 4. According to the National Broadband Plan wireless backhaul is “critical to the deployment of wireless broadband and other wireless services,” particularly “when fiber is not proximate to a cell site.” I understand that the existing wireless backhaul networks face a number of regulatory and technological constraints that limit their potential capacity. These independently-powerable services are also important to undergird FirstNet, the national first responder network. How is the FCC working to speed the deployment of wireless backhaul services in new frequency bands?

Answer. Thank you very much for the question. I am very concerned about the challenges that hard to serve communities, such as those in rural areas, face. One way to help these communities is to find more affordable ways for carriers to deploy wireless services. I am pleased to report that since 2010, the Commission has been working diligently to revise its rules to facilitate the deployment of wireless backhaul.

- Thus far, 650 megahertz of additional spectrum has been made available, mostly in rural areas, for wireless backhaul.

- We have revised our technical antenna standards in several bands to allow the use of smaller antennas, which can lower costs for consumers and operators.
- Additionally, the Commission eliminated unnecessary rules which have hindered deployment in the microwave bands.

The agency has also established build-out requirements in its microwave bands to ensure that licensees timely deploy networks and provide service to customers.

- For the 24 GHz Band microwave service, Local Multipoint Distribution Service (LMDS) in the 28 and 31 GHz bands, and the 39 GHz Band microwave service, all licensees must demonstrate substantial service at the end of their 10-year license term.
- In 2008 and 2010, the Wireless Telecommunications Bureau granted extensions of the build-out deadline until June 1, 2012 to licensees in the 24 GHz, 39 GHz, and LMDS bands with the expectation that the licensees would deploy networks and provide service within the extended timeframe. As a result, these licensees had at least 11½ years to meet their build-out requirements.

Question 5. What is the current state of wireless backhaul deployment in the 24 and 39 GHz bands?

Answer. To date, most wireless backhaul deployment has occurred in microwave bands lower than 24 or 39 GHz (for example, the 6 GHz, 11 GHz, 18 GHz, and 23 GHz bands).

IDT Spectrum (742 licenses) and Spectrum Holdings Technologies (199 licenses), have reported that they have met the build out requirements for their licenses in the 39 GHz band.

Staff informs me that another licensee, which held 103 out of 111 issued 24 GHz licenses and was the second largest licensee in the 39 GHz band with 634 licenses, built out only 48 of its 737 combined 24 and 39 GHz licenses.

Question 6. Has any company tried to develop new technology that is optimized for wireless backhaul in these new frequency bands?

Answer. Staff informs me that equipment is available for licensees to deploy wireless back services in these frequency bands.

Question 7. The FCC has moved to reclaim wireless backhaul spectrum in the 24 and 39 GHz range from a number of wireless backhaul providers despite the providers request for additional time to complete their roll-out. If the FCC ultimately reclaims spectrum in the 24 and 39 GHz range, how long will it take, including the necessary legal proceedings, for a new wireless backhaul provider to build-out a backhaul service with the seized spectrum?

Answer. According to FCC staff, only one licensee failed to demonstrate compliance with the substantial service requirements for 94 of its 24 GHz licenses and 595 of its 39 GHz licenses.

Staff informs me that the Wireless Telecommunications Bureau (Bureau) denied that licensee's requests for an additional extension of time to demonstrate substantial service for these licenses, as well as its associated requests for waiver of the June 1, 2012 substantial service deadline.

Based on these determinations, these licenses automatically terminated, by operation of Commission rule, as of June 1, 2012. The Bureau also denied similar requests for extensions in the LMDS band.

The Commission seeks to make spectrum in inventory available in an efficient and timely manner. As a general matter, once a licensee forfeits a license and it reverts back to inventory, the FCC can move directly to re-auction.

With respect to the 24 GHz and 39 GHz licensees that automatically terminated, a bankruptcy court injunction currently prohibits the Commission from reassigning those licenses until the previous licensee exhausts its appeal rights.

Question 8. In at least one case on Appeal to the Full FCC Commission, a significant wireless backhaul provider, from whom the FCC seized spectrum, has proposed an aggressive build-out plan that will have its wireless backhaul network up and running in 18 months. If the FCC were to prioritize the rollout of wireless backhaul services, would it be more expedient to grant an 18 month extension and allow a planned expansion to move forward or can the FCC clear the spectrum and find another company to build-out the necessary wireless backhaul in less than 18 months?

Answer. This issue has been raised by a licensee's Application for Review that seeks to overturn the Bureau's decision to terminate that party's licenses. I am carefully considering this application.

Question 9. Will the FCC work to ensure that it takes all appropriate actions, including reviewing prior staff-driven efforts intended to strip existing wireless

backhaul providers of their spectrum, to speed the build-out of needed wireless backhaul services?

Answer. I intend to give careful consideration to the pending application for Commission review of the Bureau's action denying its extension request.

I hope the Commission will continue to take all appropriate actions to promote the availability of wireless backhaul.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BARBARA BOXER TO
HON. JESSICA ROSENWORCEL

Question 1. On November 30, 2012, I along with eight of my colleagues sent a letter urging you not to relax the Commission's cross-ownership rules without responding to our concerns about the low levels of female and minority ownership of broadcast radio and television stations. In February, the Commission announced that it would be delaying its vote on the new rules as it awaits the results of a study by the Minority Media and Telecommunications Council regarding the effects of cross-ownership rules on minority ownership and newsgathering.

Given the fact that MMTC's study is to be conducted by a broadcast industry analyst who is backed by the newspaper and broadcast industry associations and has publicly supported a relaxation of the cross-ownership rules, do you believe the study represents an independent and impartial analysis of the impact of cross ownership on minority owners?

Answer. The Minority Media and Telecommunications Council (MMTC) has requested that the Commission defer its vote in the 2010 Quadrennial Review proceeding (Docket No. 09-182), which is mandated by Congress, and the Promoting Diversification of Ownership in the Broadcasting Services proceeding (Docket No. 07-294) in order to conduct a study on the impact of cross-ownership on minority and female broadcast ownership. Once MMTC has submitted the study to the Commission, I will be in a better position to comment on its findings. Generally, I have welcomed all stakeholders to submit studies and other information that would be helpful to Commission deliberations. The issues raised in the media ownership proceeding, including the promotion of journalism and viewpoint diversity, are essential to democratic discourse.

Question 1a. Do you believe the study's methodology will provide the kind of analysis required by the Third Circuit Court of Appeals when it ordered the Commission to provide better justification for proposed diversity efforts?

Answer. In *Prometheus Radio Project v. Federal Communications Commission*, the Court of Appeals for the Third Circuit remanded an earlier decision on media ownership to the Commission. In doing so, it specifically directed the agency to "consider the effect of its rules on minority and female ownership."

Prior to my joining the Commission, the agency initiated a series of studies on media ownership, several of which examined issues related to minority ownership of broadcast stations and viewpoint diversity. Based on the results of those studies and comments submitted in the record, the Chairman of the agency chose to circulate a draft decision in the 2010 Quadrennial Review proceeding. I believe that this proceeding would still benefit from additional data and as a result, I have consistently encouraged a wide range of stakeholders to submit their views to the Commission. Yet until the MMTC study is before the agency, it is difficult to comment on its methodology and specific content. But I believe that it is essential for the Commission to build a record that is responsive to the remand of the Third Circuit Court of Appeals and consistent with the law.

Question 1b. Does the Commission believe that radio contributes to viewpoint diversity?

If the Commission were to conclude that radio does not contribute to diversity, how would that decision undermine future efforts to ensure that radio ownership is as diverse as the country it serves?

Answer. Radio is a versatile medium that can provide local content and serve as an outlet for a wide range of viewpoints. Unfortunately, women and minorities are substantially underrepresented in the ownership of radio stations. Simply put, the ownership of full-power broadcast stations is not as diverse as the country it serves. The decrease in ownership has been especially acute following the elimination of the minority tax certificate program in 1995. As a result, at present, racial and ethnic minorities control only 8 percent of full-power radio stations and 3.6 percent of full-power television stations. In analyzing the 2010 Quadrennial Review proceeding, the Commission must be guided by its traditional goals of localism, diversity, and competition. I look forward to working with you on these issues going forward.

Question 2. The Commission has acknowledged that rural consumers are experiencing significant problems receiving long distance or wireless calls on their landline telephones. The problem appears to be attributable to the use of IP-based least-cost routing providers.

What does the Commission plan to do to ensure that such interconnection and reliability problems do not become more prevalent as our Nation's telephone networks transition to wireless and IP-based services?

Answer. Failure to complete calls to rural subscribers can cut families off from relatives, lead rural businesses to lose customers, and create dangerous delays for public safety communications. This is unacceptable. That is why I supported a recent Notice of Proposed Rulemaking (FCC 13–18) that proposed new record-keeping requirements for originating facilities-based interstate service providers, including wireless providers and interconnected VoIP providers. Adopting these requirements would mean the Commission would have the data necessary to go after bad actors, vigorously enforce its rules, and bring an end to rural call completion problems. The comment cycle for this rulemaking closes on May 28, 2013. I am committed to acting quickly to work with my colleagues to adopt final rules in this proceeding.

Question 2a. In light of the recent complaint filed in Federal court by VoIP providers claiming that the Commission lacks authority under the Communications Act to apply the no-blocking rule to VoIP calls, is additional authority needed from Congress to address the rural call completion problem?

Answer. I believe that the Commission has the authority necessary to address the rural call completion problem. However, I acknowledge that the Commission has not yet formally determined whether VoIP services that are exchanged with local exchange carriers over the public switched telephone network should be classified as “telecommunications services” or “information services” under the Communications Act. If the Commission relies on authority under the former, it would be able to ban call blocking and practices that result in the failure to complete calls to rural areas as “unjust and unreasonable practice[s]” under Section 210(b) of the Communications Act, among other possible provisions. If, however, the Commission relies on authority under the latter, it would need to exercise authority under its Title I jurisdiction to adopt rules reasonably ancillary to the effective performance of its statutorily mandated responsibilities, such as enforcing a prohibition on call blocking and related practices by carriers. But as a general matter, I would welcome any additional authority that Congress believes is necessary to address this problem.

Question 3. More than half of U.S. broadband subscribers are subject to some form of bandwidth cap or usage-based pricing. Experts have pointed out that broadband caps are inefficient for addressing network congestion and may, instead, have anti-competitive effects. What does the Commission plan to do to ensure that caps do not undermine access to affordable, high-speed broadband?

I believe that the Commission should monitor the evolution of data caps—and their impact on consumers. As a general matter, I support the proposition that those who use more of service may need to pay more—as is the case with usage-based pricing. Moreover, if these schemes are transparent and address real network capacity concerns, they can be a legitimate tool to manage network congestion. But I recognize that if data caps are set only to generate fees for exceeding the caps, this can reduce incentives for robust broadband deployment and hinder access to affordable, high-speed broadband.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. FRANK R. LAUTENBERG TO
HON. JESSICA ROSENWORCEL

Question. Nineteen states currently restrict local governments' ability to offer broadband, even in areas where companies won't make it available or affordable. I have previously introduced bills that would prevent states from restricting municipal broadband, and I am considering reintroducing this legislation. Do you agree that states should not be permitted to restrict municipalities from offering broadband to their residents?

Answer. I agree. Access to broadband is essential for prosperity in the 21st century. In communities that lack broadband services, municipalities may offer the only solution to bringing affordable high-speed services to their residents. I believe that state laws that restrict local governments from offering broadband to their residents—particularly in unserved areas—can hinder broadband deployment and adoption.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. CLAIRE MCCASKILL TO
HON. JESSICA ROSENWORCEL

Question 1. Chairman Genachowski and I have both written to the Federal Aviation Administration (FAA) encouraging the agency to revise its rules to allow for the expanded use of electronic devices during flight. The FAA has established an Aviation Rulemaking Committee (ARC) to look at possible changes to the rules, and the FCC has a representative on that committee, which will make recommendations to the FAA Administrator this summer.

I am convinced, and I think most Americans agree, any safety concerns that might have once existed to justify the current rules have been addressed by advances in technology both on the airplane itself and in consumer electronics. While I recognize the decision is not one that rests with the FCC, as leaders on technology issues—and as one of only three government agencies with a seat at the table, and the only not under the Department of Transportation—I want to know if all of the Commissioners share those views on this issue.

Answer. Yes. Demand for wireless services is growing at a breathtaking pace. Consumers have come to expect that they can rely on their electronic devices at all times—including when they travel. At the same time, it is necessary to make sure that consumers use their devices in a way that does not jeopardize public safety. To this end, I understand that the Federal Aviation Administration is closely examining the impact of the use of electronic devices on aircrafts. As part of this effort, the Commission is participating in the Federal Aviation Administration's Aviation Rulemaking Committee to examine this issue. I am hopeful that this process will result in revised policies that permit greater use of personal electronic devices during flight without harming public safety.

Question 1a. Given Chairman Genachowski's stated position on the issue, can I trust that you will be directing the FCC's representative on the ARC to convey the opinion of the Commission that the rules should be changed and work to aggressively push the FAA to do so?

Answer. While only the Chairman of the agency provides formal direction to the Commission's representative to the Aviation Rulemaking Committee, I support his efforts. Moreover, I believe that the Commission should continue to work with the Federal Aviation Administration to update rules limiting consumer access to personal electronic devices on aircraft.

Question 2. Although the FCC's reforms to the Universal Service Fund's (USF) Lifeline program through its February 2012 order were much needed, and attempted to address duplicative Lifeline support, ineligibility, deceptive marketing and other concerns raised in my December 2011 letter to you on this topic, the reforms appear to have had little effect in limiting the rapid growth of the program.

While I commend the Commission for its attempt to rein in the rapid growth of the Lifeline program and address the problems you inherited when the program was expanded to include wireless providers without any additional safeguards to prevent waste, fraud and abuse, even with the reform order in place the Lifeline program grew by 26 percent (\$445 million) last year. What additional action is the Commission considering to address waste, fraud and abuse in the Lifeline program?

Question 2a. Specifically, would the Commission consider suspending new enrollment in the program while the reforms continue to be implemented? Would the Commission consider capping the program?

Answer. The Lifeline program is an important part of keeping everyone in this country connected. After all, having access to telephone service is essential for calling emergency services, being able to secure a job, take care of loved ones, and manage routine interactions with government and with healthcare providers. But for this program to continue to work, the Commission must do more to ensure that it is free of waste, fraud, and abuse. Before I arrived at the agency, my colleagues took steps to improve the Lifeline program. To date, their reform efforts have already saved more than \$200 million in 2012 and are on track to save as much as \$400 million in 2013. In addition, the number of Lifeline subscribers has declined each month since August 2012 and now stands at 13.2 million down from 18.2 million.

This is a good beginning. But we need to do more—because this is a program that needs mending, not ending. To start, I believe we should do more auditing. In particular, I think the agency's Office of Inspector General should be tasked with a review of this program and the effectiveness of the reforms already put in place. Moreover, I recognize that in the Lifeline reforms adopted by my colleagues last year, they specifically contemplated that after these reforms went into effect the agency would be in a position to determine if a specific budget for the program is necessary. Furthermore, I believe we should revisit questions raised in our last rulemaking on

this subject—including if the \$9.25 per month subsidy is the appropriate monthly support amount for this program. However, given that the number of Lifeline subscribers has declined substantially, I do not believe suspension of new enrollment would be prudent at this time.

Question 2b. We are quick in Washington to create new programs but what we don't do often enough is reevaluate those programs to make sure they're still needed. The FCC created the Lifeline program nearly 30 years ago to make sure local phone service was still affordable for low-income Americans following the breakup of AT&T in 1984. Because technology has changed and competition has grown, basic telecommunications services are as affordable as ever. I am wondering if the Commission has recently looked at whether the Lifeline program is even still necessary, and if not if you would be willing to do so?

Answer. As noted above, the Lifeline program is an important part of keeping low-income consumers connected to loved ones, emergency services, healthcare providers and employment opportunities. However, across the board, all of our universal service programs merit our regular review, attention, and care. To this end, the agency must continuously evaluate the Lifeline program to ensure that it is meeting its intended purpose under Section 254(b)—that quality voice services are available at affordable rates for low-income consumers throughout the Nation.

Question 3. In order to keep up with the demand for spectrum, many in the private-sector believe efforts need to be taken to clear some of the federally-occupied spectrum for commercial use, most significantly spectrum currently occupied by the Department of Defense. Chairman Genachowski and I have discussed this issue but I am interested in the views of all of the commissioners.

With the exponential rise in demand for mobile broadband services, we need to look at all potential resources for spectrum repurposing—including Federal Government users. The GAO recently reported that the total percentage of the most highly-valued spectrum exclusively or predominantly used by the Federal Government is as high as 57 percent. Given Federal agency budgets, many of these systems are not up-to-date and thus operate inefficiently, and some Federal uses could be served by commercial mobile providers. Are there specific instances in which you believe Federal spectrum could be operated more efficiently?

Answer. Federal authorities have substantial spectrum assignments. Critical missions throughout the government are dependent on access to our airwaves. Nonetheless, we are on a hunt for new opportunities for commercial spectrum, in order to reach the 500 megahertz benchmark for new wireless broadband use in the Executive Order from President Obama more than two years ago.

In accord with the Commercial Spectrum Enhancement Act, the Commission recently notified the National Telecommunications and Information Administration of plans to auction the 1755–1780 MHz band and the 1695–1710 MHz band. These bands are particularly well suited for commercial use because they can be paired with other spectrum bands required to be auctioned by the Middle Class Tax Relief and Job Creation Act. Specifically, the 1755–1780 MHz band can be paired with the 2155–2180 MHz band and the 1695–1710 MHz band can be paired with the 2095–2110 MHz band.

But ultimately, I think it is time for a fresh approach to Federal spectrum use. Our traditional approach to repurposing Federal spectrum entailed a three-step process—clearing Federal users, relocating them, and then auctioning the cleared spectrum for new commercial use. Although this process has worked well in the past, it will be harder from here on out. After all, more government functions than ever before are traveling over our airwaves. Furthermore, finding new spectrum for government relocation and the funds to support moving is growing more challenging.

To be successful going forward, I believe we need a new paradigm. I believe Federal Government users must share in the benefit from repurposing their spectrum. To this end, it is time to develop a series of incentives to serve as the catalyst for freeing more Federal spectrum for commercial use. We need to find ways to reward Federal authorities for efficient use of their spectrum so that they see benefit in commercial reallocation and not just loss. I believe if we align incentives properly, we will both make Federal use of this scarce resource more efficient and create new opportunities for commercial use.

Question 4. In addition to this Committee I also serve on the Armed Services Committee. I have started to look at ways we can incentivize Federal agencies—including the Department of Defense—to clear or share spectrum, to free up more spectrum for commercial auction. Based on your experience working with Federal spectrum users, what ideas can you offer for creating such incentives?

Answer. As noted above, I think it is necessary to start identifying ways to incentivize Federal authorities to be more efficient with spectrum. We need a system that rewards them for reducing their current allocations and using the spectrum they have more efficiently. To this end, we need to find ways that reward Federal authorities when they can identify a swath of their airwaves that can be repurposed and transitioned from Federal to commercial use. In short, they must see value from using spectrum efficiently instead of just seeing loss from commercial reallocation. These rewards could come in a variety of forms. They could be straightforward and financial—under which a certain portion of the revenue from the commercial auction of their previously held spectrum would be reserved for the Federal entity releasing the spectrum. They could also involve revenue from leasing for shared access during a period of transition to cleared rights. They also might involve incentives through the budget and appropriations process. Finally, it may be useful to consider the development of synthetic currency, as proposed by the President's Council of Advisors on Science and Technology, to provide a consistent way to reward efficiency.

In the end, when it comes to transitioning spectrum from Federal to commercial use, we need not only use sticks—we should explore carrots. I think the latter is bound to facilitate more opportunity in spectrum bands. Given the multiplying number of wireless devices in our lives and the growing demands on our airwaves—licensed and unlicensed—now is not a moment too soon.

Question 5. Last year Congress passed a Rubio-McCaskill resolution, S.Con.Res. 50, stating that Internet infrastructure and content should remain free from international regulation. Members of the U.S. delegation to the ITU conference in Dubai have indicated that Congress sending a clear message on the issue was helpful in their negotiations and that our efforts on this issue should continue, especially since those nations that want greater regulation of Internet infrastructure and content will certainly continue in their efforts. What more can Congress be doing to help promote a free and open Internet around the world?

Answer. Last year, I had the privilege of serving as part of the United States delegation to the Asia-Pacific Economic Cooperation in St. Petersburg, Russia. The meeting I attended was a preparatory meeting before the International Telecommunication Union's World Conference on International Telecommunications (WCIT) in Dubai last December. I was able to witness firsthand the benefit of strong bipartisan support from the Congress. To this end the unity of purpose embodied in S.Con.Res. 50 will continue to be helpful going forward as the United States seeks to promote a globally free and open Internet, including in the World Telecommunication/ICT Policy Forum (WTPF) taking place in May this year in Geneva.

Question 5a. A handful of countries, such as China and Iran, want to heavily censor the Internet content people can access inside their borders, while many other nations are simply looking for ways to generate revenue from Internet traffic that moves through their country, much in the same way they have done with voice communications for years. Are there policies the United States can and should be promoting around the globe to help other nations develop their telecommunications infrastructure, unleash the economic activity that comes with it, and thus remove their desire to use global Internet traffic as a revenue source?

Answer. The discussions at the WCIT in Dubai made clear that it is necessary to work closely with developing countries to highlight the social and economic benefits of widespread Internet access. The Commission is working closely with the Department of State and other agencies to continue outreach efforts that focus on promoting an environment for broadband development that creates opportunities for the private sector to invest in innovative technologies. For example, the United States has encouraged countries to adopt transparent policy and legal frameworks; open telecommunications markets to competition; adopt licensing and taxation reforms; establish transparent universal service programs to support telecommunications instead of traditional subsidies from international services; and encourage the efficient and innovative use of spectrum for mobile broadband. Moreover, in my own international work, including at the Asia-Pacific Economic Cooperation in St. Petersburg, Russia and the World Mobile Congress in Barcelona, Spain, I have and will continue to emphasize that regulations that seek to control revenue flows will hinder investment and impede broadband growth.

Question 6. The upcoming incentive auctions have been pitched to Congress as a market-based mechanism that would help put spectrum in the hands of those most capable of unleashing its economic potential. That was an appealing idea, and on that basis Congress authorized you to conduct them. Now there is some concern that the Commission is contemplating going beyond what will be freed up by the auctions and is considering repurposing or reallocating many more megahertz in rural

areas just through repacking broadcasters and eliminating LPTV and translator service. Is your intention to deal only with what is freed up by auctions, or is your intention to reallocate as much spectrum from broadcasters to broadband providers as possible?

Answer. The Middle Class Tax Relief and Job Creation Act directs the Commission to conduct an incentive auction involving broadcast spectrum, followed by a repacking of remaining broadcasters in order to free airwaves for a commercial wireless broadband auction. In doing so, the Commission must evaluate the broadcast television spectrum, including the spectrum made available through the required reverse auction and used by low power stations. We have a duty to follow the law and act consistently with the statute. I will certainly do so.

As a general matter, however, there is greater demand for wireless spectrum in congested urban areas and lesser demand in sparsely populated rural areas. As a result, there may be limited need to reallocate spectrum in rural areas where low power television and translators provide service to local communities. But the specific situations in individual communities, in light of their geography and spectrum interests, may vary.

Question 6a. Has the Commission studied the impact of reclaiming spectrum on LPTV and translator service, especially in more rural states that rely heavily on them to reach areas where no other service is available?

Answer. In our Notice of Proposed Rulemaking concerning the upcoming spectrum auctions (FCC 12–118), the Commission specifically recognized that “[l]ow power television stations are a source of diverse and local television programming, and television translator stations are an important free, over-the-air television resource in rural and remote locations.” I agree. The agency sought comment on “measures to help ensure that important programming provided by low power television and television translator stations continues to reach viewers.” My office is in the process of reviewing the comments submitted in response to this rulemaking.

It is important to note, however, that the Middle Class Tax Relief and Job Creation Act provided specific protections in the repacking process strictly to full power and Class A stations. At the same time, Congress made clear that the spectrum usage rights of low power television stations would not be altered by the law. As a result, the Commission must work within the parameters of the statute as it determines how best to preserve access to local programming, including programming broadcast by low power television stations and through the use of translators.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. AMY KLOBUCHAR TO
HON. JESSICA ROSENWORCEL (*Referenced in the hearing*)

Question. An issue I’ve been interested in for several years is metal theft. It’s a crime that we see across the country and that tends to increase with rising metal prices. And in the past, the FBI has put out information on the threat posed to critical infrastructure by metal theft. It can also be extremely costly to many different industries, including the telecom industry.

I’ve introduced legislation with Senators Graham, Schumer and Hoeven, which would make it an explicit Federal crime to steal metal from critical infrastructure and take various steps to help prevent metal theft more broadly. Most states have enacted laws that try to address the problem, but they are something of a patchwork. My bill will not pre-empt existing state laws, but rather will aim to fill in gaps and allow the Federal Government to partner with state and local authorities.

Can you talk about how metal theft can cause damage to telecom infrastructure and lead to disruptions to telecom service and to what degree can it cause problems for public safety? Is the FCC doing anything currently to address this issue?

Answer. Shortly after Hurricane Sandy struck last year, I visited some of the communications facilities in New York that were hard hit by the storm. I will never forget the messy tangle of wires and the mass of technicians working inside through the night to get our networks back up and running. But I was also struck by the guards standing outside on the street in front of a giant container, filled with metal pieces from the repair work required following the storm. On top of everything else required in the aftermath of the hurricane, it was necessary to take these steps to prevent metal theft and the additional damage it could cause to communications infrastructure.

So I understand that metal theft can cause network outages that disrupt service and endanger lives. It can sever communities from first responders by harming access to emergency 911 systems. Moreover, replacing and repairing damaged communications infrastructure is costly. In fact, the Department of Energy has estimated that metal theft costs businesses across the country roughly \$1 billion each year.

While I am not aware of ongoing Commission initiatives regarding metal theft, I would be pleased to work with you to address this problem.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. RICHARD BLUMENTHAL TO
HON. JESSICA ROSENWORCEL

Broadband Competition

Question 1. In 2010 the FCC stated in the National Broadband Plan that, “. . . there are reasons to be concerned about wireline broadband competition in the United States. Whether sufficient competition exists is unclear and, even if such competition presently exists, it is surely fragile.”

The plan further stated that, “To ensure that the right policies are put in place so that the broadband ecosystem benefits from meaningful competition as it evolves, it is important to have an ongoing, data-driven evaluation of the state of competition,” and that “additional data are needed to more rigorously evaluate broadband competition.”

The Plan specifically recommended the Commission undertake a number of reforms to data collection including:

1. “[C]ollect broadband availability data at the census block level, by provider, technology and offered speed.”
2. “[C]ollect data on advertised prices, prices actually paid by subscribers, plans, bundles and promotions of fixed and mobile broadband services that have material penetration among users, as well as their evolution over time, by provider and by geographic area.” The Plan stated that in particular, it “is crucial that the FCC track and compare the evolution of pricing in areas where two service providers offer very high peak speeds with pricing in areas where only one provider can offer very high peak speeds.”
3. “[C]ollect information related to switching barriers, such as early termination fees and contract length.”

The National Broadband Plan also recommended that the Commission establish a general policy of making the data it collects available to the public, including via the Internet in a broadband data depository.

These recommendations reflect the comments of the Department of Justice, who told the Commission that it “. . . should expand its efforts to include an assessment of the nature and extent of competition in each local broadband market.”

Nearly two years after the National Broadband Plan was released, the Commission issued a Notice of Proposed Rulemaking (NPRM) that encapsulated many of these recommendations. The Commission has yet to act on this NPRM.

Chairman Genachowski, Commissioners McDowell, Clyburn, Rosenworcel and Pai, do you agree with the National Broadband Plan’s recommendations on the need to collect these additional broadband data? Do you think the Commission, policy-makers and the public have the appropriate data to determine if the Commission’s competition policies are, in the words of the Department of Justice, using the appropriate “policy levers. . . to produce superior outcomes,” and if not, what additional data is needed?

Answer. I agree that the Commission should be collecting these additional data. With more information, we will be able to improve our assessment of competition and enhance our broadband policies. Back in 2011, before I joined the Commission, the agency adopted a Notice of Proposed Rulemaking to consider updates to the Commission’s broadband data collection efforts. At present, the Commission collects broadband subscription data on a census tract basis. Yet because more detail is needed, the agency has relied on the National Telecommunications and Information Administration’s National Broadband Map to inform its broadband policy initiatives. The National Broadband Map shows broadband availability at the more granular census block level data and includes information on the speeds offered by provider type.

Going forward, the Commission must continue to work with the National Telecommunications and Information Administration to make sure that the National Broadband Map is kept up to date with the information we need. In addition, I believe that the Commission should collect more data that is relevant to consumers, including information on the price and structure of broadband services offered. I also agree that these data should be made public to the greatest extent possible. Moreover, we should make this information available in full electronic, machine-readable formats. By making it public in this fashion we can turn to others to help

us process the data and identify meaningful trends that deserve our attention, our concern—or even our praise.

Sports Blackouts

Question 2. Over one year ago, I wrote the FCC and requested the agency allow public comment on a petition for rulemaking asking the Commission to reexamine the Sports Blackout Rule. This rule is nearly forty years old and, along with other Federal rules and league policies, is one of many obstacles making it unreasonably difficult for fans to watch their favorite teams play.

I thank the Commission for taking my letter seriously and opening a Notice of Inquiry (NOI) to solicit comments from the public and other stakeholders. However, that docket was opened in January of 2012 and the Commission has yet to take any further action.

The response in the proceeding was overwhelming. The NOI garnered thousands of comments from consumers impacted by local sports blackouts, including elderly and disabled sports fans unable to attend live games. The NFL's revised local blackout policy seems to have done little in the last regular season to help the most heavily impacted markets. Commenters have proposed several options, including preserving the status quo, eliminating the Sports Blackout Rule altogether, or adopting a sunset period requiring a public interest showing to renew the rule.

Chairman Genachowski, Commissioners McDowell, Clyburn, Rosenworcel and Pai, what else can the Commission do to help fans unable to watch their favorite teams compete?

Answer. When a game is blacked out and unavailable for viewing in the local community, fans often contact the Commission—irritated and upset that they cannot watch their hometown team. Although I appreciate that the NFL has revised its local blackout policy, I understand that 15 games were still blocked in 2012. This is unfortunate. Accordingly, I would support the Commission reexamining the policies behind this forty year old rule in a Notice of Proposed Rulemaking and formally determining if retaining this rule remains in the public interest.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN THUNE TO
HON. JESSICA ROSENWORCEL

Question 1. Section 706(b) of the 1996 Telecommunications Act requires the Commission to conduct a regular inquiry into “whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.” If answered in the negative, the Commission is further directed by law to “take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.”

Commissioner Rosenworcel, your official statement upon the release of the August 2012 “706 Report” referenced an OECD ranking in which the United States ranks 15th in the world in fixed broadband penetration. You said: “Until the data unequivocally demonstrate that we [lead the world in broadband], how can the answer to our Section 706 inquiry—whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion—be anything but no?”

Question 1a. Is your view of the “706” determination as simple as that—that we are not deploying advanced telecommunications services in a reasonable and timely manner if the United States is not ranked number one in a particular OECD broadband ranking?

Answer. Section 706 asks the Commission to examine “whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.” The Commission considers a broad range of broadband data in its Section 706 inquiry, including but not limited to the number of households served by broadband, the number of Americans that have adopted broadband services, and international broadband data. This is as it should be.

However, I believe that the state of broadband deployment in the United States relative to the rest of the world is a relevant factor to the agency’s inquiry into whether broadband is being deployed in a “reasonable and timely fashion.” Broadband deployment is a key driver of economic growth both here in the United States and abroad. If the United States lags behind its peers in broadband deployment and adoption, we will also lag behind in our ability to compete in the global economy. Failure to encourage a robust broadband infrastructure that is competitive with the most advanced nations will lead to a loss in American jobs and business.

Question 1b. Did you or your staff analyze the particular OECD ranking cited in your comments? If so, would you provide the Committee with your analysis?

Answer. My staff and I reviewed the Commission's broadband reports, which are publicly available documents. The Commission's Eighth Broadband Progress Report (FCC 12-90) and a companion report prepared by the agency's International Bureau titled the International Broadband Data Report (DA 12-1334) cite to and analyze international broadband data from the Organization for Economic Co-operation and Development and other sources.

Question 1c. If a future "706 Report" is answered in the affirmative, do the actions taken at the FCC in its Open Internet Order—under authority claimed to exist because of the negative 706(b) determination—become unauthorized?

Answer. No. It is my understanding that the Open Internet Order (FCC 10-201) relied for its statutory authority not only on section 706(b) of the Telecommunications Act of 1996, but also on other sources of authority. Those statutory bases include section 706(a) of the Telecommunications Act of 1996 and Title III of the Communications Act of 1934, among other provisions. These are discussed in some detail in paragraphs 115-137 of the Open Internet Order. I acknowledge, however, that the Open Internet Order is under review before the Court of Appeals for the District of Columbia Circuit.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. DEAN HELLER TO
HON. JESSICA ROSENWORCEL

Question 1. The hearing touched on many themes that I believe the Committee should look at including process reform, the looming transition to IP and the Spectrum auction. However, an opportunity for the Chairman and the Commissioners to share what they see "over the hill" was not discussed at length. I would like to provide you with an opportunity to share what you believe are some issues that may not have been discussed at the hearing.

Answer. Thank you for this opportunity.

In addition to incentive auctions and our progress toward an increasingly IP-based telecommunications infrastructure, I believe we must focus additional energy on two things: providing incentives to help free Federal spectrum for new commercial use and updating the E-Rate program for the digital age.

First, demand for our airwaves is growing at a breathtaking pace. We are a nation with more mobile phones than people. More than half of these phones are smartphones, which require 35 times the bandwidth of wireless phones with only voice capability. Tablets, which are now owned by one in five households, use 121 times the bandwidth of wireless phones with only voice capability. But this is only the beginning. By the end of the decade, there will be 50 billion machine-to-machine devices communicating wirelessly worldwide.

We need to prepare for this demand for spectrum. Right now, courtesy of the Middle Class Tax Relief and Job Creation Act, the Commission has a series of traditional spectrum auctions on tap. In addition, it has new authority to repurpose spectrum for commercial mobile broadband use through incentive auctions. Nonetheless, more action is required.

That is why I think it is time to take a fresh look at Federal spectrum use. Our traditional approach to repurposing Federal spectrum entailed a three step process—clearing Federal users, relocating them, and then auctioning the cleared spectrum for new commercial use. But while this process may have worked in the past, more government functions than ever before are traveling over our airwaves. Consequently, it is growing harder to find spectrum for Federal relocation.

To be successful going forward, I believe Federal users must share in the benefit from repurposing their spectrum. We must develop a series of incentives to serve as the catalyst for freeing more Federal spectrum for commercial use. We should find ways to reward Federal authorities for efficient use their spectrum resource. They need to see benefit in commercial allocation, and not only loss. That is why I believe if we align incentives properly, we will make Federal use more efficient and create new opportunities for commercial use.

Second, we must update the E-Rate program to meet 21st century education needs. This is a program that supports communications services and broadband in schools and libraries across the country. Yet year-in and year-out, the demand for E-Rate support is more than double the roughly \$2.3 billion the Commission now makes available annually. Moreover, the Commission's own survey indicates that 80 percent of schools and libraries believe that their broadband connections do not meet their current needs. Access to adequate broadband capacity in our schools and

libraries is not a luxury—it is a necessity for our next generation to be able to compete.

That is why I believe we should create E-Rate 2.0. We can protect what we have already done with this program, build on it, and put the program on a course to provide higher speeds and greater opportunities in the days ahead. To do so, we need to set new capacity goals. To this end, I believe that by the 2015 school year, every school should have access to 100 Megabits per 1000 students. Before the end of the decade, every school should have access 1 Gigabit per 1000 students.

Question 2. The spectrum auction is of the utmost importance. Is the Commission going to set a target date of 2014?

Answer. I have repeatedly called for a clear timeline for our incentive auctions—and all of our spectrum auctions. A date certain will focus all stakeholders, lead to capital formation, provide certainty for broadcasters, and help ensure success for all of our upcoming spectrum auctions.

Question 2a. What are the challenges with hitting this date?

Answer. The incentive auctions that Congress called on the Commission to implement will be the most complex spectrum auctions ever conducted anywhere in the world. We must develop a first of its kind reverse auction to benefit broadcasters, devise a method to repack remaining broadcasters, and create a band plan to give opportunities to wireless carriers in the 600 MHz band. But while we certainly face challenges, the Commission has plenty of experience on which to draw. Over the course of the last two decades, the agency has held more than 80 auctions; it has issued more than 36,000 licenses; and it has raised more than \$50 billion for the United States Treasury. The Commission's past simultaneous multiple round ascending auctions have been a model for governments and commercial wireless providers across the globe.

Question 3. The Commission's spectrum incentive auction process has the potential for channel reassignment. Nevada has over 300 translators and low power TV stations, any repacking will put a significant burden on these stations. Is the FCC taking this into consideration? Can the Commission preserve viewer access to local channels and still hit the target of 2014 for the auction to take place?

Answer. In the Notice of Proposed Rulemaking in the Matter of Expanding the Economic and Innovation Opportunities Through Incentive Auctions (FCC 12–118), the Commission recognized that “[l]ow power television stations are a source of diverse and local television programming, and television translator stations are an important free, over-the-air television resource in rural and remote locations.” The agency sought comment on “measures to help ensure that important programming provided by low power television and television translator stations continues to reach viewers.” My office is in the process of reviewing the comments submitted in response to this rulemaking.

It is important to note, however, that the Middle Class Tax Relief and Job Creation Act provided specific protections in the repacking process strictly to full power and Class A stations. At the same time, Congress made clear that the spectrum usage rights of low power television stations would not be altered by his law. As a result, the Commission must work within the parameters of the statute in determining how best to preserve access to local programming, including programming broadcast by low power stations.

I will work diligently to implement this law as quickly and effectively as possible to meet the goals of Congress. I believe a 2014 target for the auction remains achievable. However, I also recognize that as we receive additional input from stakeholders, we need to be open to adjusting this target, if necessary.

Question 4. According to the National Broadband Plan wireless backhaul is “critical to the deployment of wireless broadband and other wireless services,” particularly “when fiber is not proximate to a cell site.” I understand that the existing wireless backhaul networks face a number of regulatory and technological constraints that limit their potential capacity. These independently-powerable services are also important to undergird FirstNet, the national first responder network. How is the FCC working to speed the deployment of wireless backhaul services in new frequency bands?

Answer. Backhaul is the essential artery from the network edge to the network core. Traditionally, backhaul has been the province of copper circuits and fiber optic lines. But as our networks rely increasingly on wireless technologies, microwave facilities are now often used to transmit data between cell sites and between cell sites and network backbones.

As recommended by the National Broadband Plan, the Commission initiated a proceeding in 2010 to facilitate the deployment of wireless backhaul. Overall, through this proceeding, the Commission has made 650 megahertz of additional

spectrum available for wireless backhaul, most of which in rural areas. While some of the issues involved in this proceeding were addressed before I took office last year, I did vote to approve an order last fall that helped streamline many technical rules, such as updating microwave backhaul efficiency standards, providing higher capacity channels, and allowing use of smaller antennas. These policies decreased costs and increased flexibility, resulting in lowered barriers to entry in rural areas where laying new fiber for backhaul can be prohibitively expensive. I also voted to eliminate unnecessary rules that hindered deployment in the microwave bands.

In addition, the Commission adopted build-out requirements before I took office that I understand were intended to encourage deployment of wireless backhaul. For instance, licensees in the 24 GHz Band microwave service, Local Multipoint Distribution Service in the 28 GHz and 31 GHz bands, and the 39 GHz Band microwave service were initially required to demonstrate substantial service at the end of their 10-year license term, though that deadline was extended twice by the Commission's Wireless Bureau.

Question 4a. What is the current state of wireless backhaul deployment in the 24 and 39 GHz bands?

Answer. As I understand it, most wireless backhaul deployment has occurred in microwave bands lower than 24 GHz or 39 GHz bands (including, for example, in the 6 GHz, 11 GHz, 18 GHz, and 23 GHz bands). IDT Spectrum, which holds 742 licenses, and Spectrum Holdings Technologies, which holds 199 licenses, have reported that they have met build-out requirements for their licenses in the 39 GHz band. Fibertower, which held 103 licenses in the 24 GHz band and 634 licenses in the 39 GHz band, built out 48 of its 737 combined 24 and 39 GHz licenses.

Question 4b. Has any company tried to develop new technology that is optimized for wireless backhaul in these new frequency bands?

Answer. My understanding is that licensees in both the 24 GHz and 39 GHz bands report that equipment is available for wireless backhaul in these bands.

Question 5. The FCC has moved to reclaim wireless backhaul spectrum in the 24 and 39 GHz range from a number of wireless backhaul providers despite the providers request for additional time to complete their roll-out.

If the FCC ultimately reclaims spectrum in the 24 and 39 GHz range, how long will it take, including the necessary legal proceedings, for a new wireless backhaul provider to build-out a backhaul service with the seized spectrum?

Answer. As I understand it, one licensee failed to meet the construction deadlines for a number of its 24 GHz and 39 GHz licenses. Using its delegated authority, the Wireless Telecommunications Bureau declined to extend the deadlines for construction beyond June 1, 2012, which led to the termination of the licenses. Note that the Wireless Telecommunications Bureau also denied similar request for extensions in the Local Multipoint Distribution Service in the 28 GHz and 31 GHz bands.

While as a general matter, I believe that the Commission should set timelines for auctioning spectrum that is in our inventory, the specific 24 GHz and 39 GHz licenses that terminated last year are subject to a bankruptcy court injunction that prevents us from auctioning the licenses at this time.

Question 6. In at least one case on Appeal to the Full FCC Commission, a significant wireless backhaul provider, from whom the FCC seized spectrum, has proposed an aggressive build-out plan that will have its wireless backhaul network up and running in 18 months. If the FCC were to prioritize the rollout of wireless backhaul services, would it be more expedient to grant an 18 month extension and allow a planned expansion to move forward or can the FCC clear the spectrum and find another company to build-out the necessary wireless backhaul in less than 18 months?

Answer. The Commission should strive to encourage timely and efficient deployment of spectrum. One tool that the Commission uses to accomplish that goal is construction deadlines that prevent licensees from warehousing spectrum that they are not using. If a licensee fails to meet the deadlines, the Commission should act quickly to make the spectrum available to other licensees who may be able to put the fallow spectrum to use.

Question 7. Will the FCC work to ensure that it takes all appropriate actions, including reviewing prior staff-driven efforts intended to strip existing wireless backhaul providers of their spectrum, to speed the build-out of needed wireless backhaul services?

Answer. I make every effort to act quickly when considering petitions to review staff work. With respect to the petition from Fibertower, my office met with the company's representatives shortly after a draft order was circulated to the Commissioners. I voted on the matter within days of that meeting.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BARBARA BOXER TO
HON. AJIT PAI

Question 1. On November 30, 2012, I along with eight of my colleagues sent a letter urging you not to relax the Commission's cross-ownership rules without responding to our concerns about the low levels of female and minority ownership of broadcast radio and television stations. In February, the Commission announced that it would be delaying its vote on the new rules as it awaits the results of a study by the Minority Media and Telecommunications Council regarding the effects of cross-ownership rules on minority ownership and newsgathering.

Given the fact that MMTC's study is to be conducted by a broadcast industry analyst who is backed by the newspaper and broadcast industry associations and has publicly supported a relaxation of the cross-ownership rules, do you believe the study represents an independent and impartial analysis of the impact of cross ownership on minority owners?

Answer. MMTC has indicated to the Commission that its study will be peer reviewed and conducted in accordance with refereed journal standards. Before reaching any conclusions about the study's merit, I will need to review the completed study along with any accompanying peer review.

Question 1a. Do you believe the study's methodology will provide the kind of analysis required by the Third Circuit Court of Appeals when it ordered the Commission to provide better justification for proposed diversity efforts?

Answer. Because I have not seen or read the completed study, I have not yet reached any conclusions on this issue.

Question 1b. Does the Commission believe that radio contributes to viewpoint diversity?

Answer. In the Notice of Proposed Rulemaking issued in the 2010 Quadrennial Review (and before I took office), the Commission tentatively concluded that "radio stations are not the primary outlets that contribute to local viewpoint diversity."

Question 1c. If the Commission were to conclude that radio does not contribute to diversity, how would that decision undermine future efforts to ensure that radio ownership is as diverse as the country it serves?

Answer. I believe that the Commission should move forward quickly to implement many proposals advanced by MMTC to enhance ownership diversity, such as establishing an incubator program and relaxing restrictions on foreign investment. My support for these proposals does not depend on the strength of the link between radio and local viewpoint diversity.

Question 2. The Commission has acknowledged that rural consumers are experiencing significant problems receiving long distance or wireless calls on their landline telephones. The problem appears to be attributable to the use of IP-based least-cost routing providers.

What does the Commission plan to do to ensure that such interconnection and reliability problems do not become more prevalent as our Nation's telephone networks transition to wireless and IP-based services?

Answer. Sound engineering and testing should be the hallmarks of the Nation's IP transition. That's precisely why the Commission needs to commence an All-IP Pilot Program to ensure that we make the switch in a thoughtful manner and learn about potential problems before they arise.

Question 3. In light of the recent complaint filed in Federal court by VoIP providers claiming that the Commission lacks authority under the Communications Act to apply the no-blocking rule to VoIP calls, is additional authority needed from Congress to address the rural call completion problem?

Answer. As a general matter, the Commission has broad authority to ensure that calls dialed from one telephone number to another go through, so I do not think congressional action is necessary at this time.

Question 4. More than half of U.S. broadband subscribers are subject to some form of bandwidth cap or usage-based pricing. Experts have pointed out that broadband caps are inefficient for addressing network congestion and may, instead, have anti-competitive effects. What does the Commission plan to do to ensure that caps do not undermine access to affordable, high-speed broadband?

Answer. Although we should monitor market practices, the Commission should be hesitant to intervene when it comes to broadband pricing structures. Usage-based pricing, for example, may in fact increase the affordability of high-speed broadband by allowing broadband providers to decrease the price for low-use consumers such as senior citizens and first-time Internet users. Moreover, it is a general tenet of our free-market economy that the more you consume of a good or service, the more you are required to pay.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. CLAIRE McCASKILL TO
HON. AJIT PAI

Question 1. Chairman Genachowski and I have both written to the Federal Aviation Administration (FAA) encouraging the agency to revise its rules to allow for the expanded use of electronic devices during flight. The FAA has established an Aviation Rulemaking Committee (ARC) to look at possible changes to the rules, and the FCC has a representative on that committee, which will make recommendations to the FAA Administrator this summer.

I am convinced, and I think most Americans agree, any safety concerns that might have once existed to justify the current rules have been addressed by advances in technology both on the airplane itself and in consumer electronics. While I recognize the decision is not one that rests with the FCC, as leaders on technology issues—and as one of only three government agencies with a seat at the table, and the only not under the Department of Transportation—I want to know if all of the Commissioners share those views on this issue.

Answer. Yes, I generally share Chairman Genachowski's views on this issue and hope that the FAA can take steps to enable greater use of tablets, e-readers, and other portable devices during flights.

Question 1a. Given Chairman Genachowski's stated position on the issue, can I trust that you will be directing the FCC's representative on the ARC to convey the opinion of the Commission that the rules should be changed and work to aggressively push the FAA to do so?

Answer. While I do not have the authority to unilaterally direct the FCC's representative on the ARC, I hope that the Commission will encourage the FAA to take action on this issue.

Question 2. Although the FCC's reforms to the Universal Service Fund's (USF) Lifeline program through its February 2012 order were much needed, and attempted to address duplicative Lifeline support, ineligibility, deceptive marketing and other concerns raised in my December 2011 letter to you on this topic, the reforms appear to have had little effect in limiting the rapid growth of the program.

While I commend the Commission for its attempt to rein in the rapid growth of the Lifeline program and address the problems you inherited when the program was expanded to include wireless providers without any additional safeguards to prevent waste, fraud and abuse, even with the reform order in place the Lifeline program grew by 26 percent (\$445 million) last year. What additional action is the Commission considering to address waste, fraud and abuse in the Lifeline program?

Answer. Among other actions, the Commission is considering putting the Lifeline program on a budget, just as we have done with the high-cost program, the E-Rate program, and the rural healthcare program.

Question 2a. Specifically, would the Commission consider suspending new enrollment in the program while the reforms continue to be implemented?

Answer. If the Lifeline program were to grow substantially due to new enrollees, suspending new enrollment is one option that could be considered to constrain spending while further reforms are implemented.

Question 2b. Would the Commission consider capping the program?

Answer. Yes.

Question 3. We are quick in Washington to create new programs but what we don't do often enough is reevaluate those programs to make sure they're still needed. The FCC created the Lifeline program nearly 30 years ago to make sure local phone service was still affordable for low-income Americans following the breakup of AT&T in 1984. Because technology has changed and competition has grown, basic telecommunications services are as affordable as ever. I am wondering if the Commission has recently looked at whether the Lifeline program is even still necessary, and if not if you would be willing to do so?

Answer. The Commission should always be willing to consider whether any regulations and spending programs continue to be necessary and/or in the public interest.

Question 4. In order to keep up with the demand for spectrum, many in the private-sector believe efforts need to be taken to clear some of the federally-occupied spectrum for commercial use, most significantly spectrum currently occupied by the Department of Defense. Chairman Genachowski and I have discussed this issue but I am interested in the views of all of the commissioners.

With the exponential rise in demand for mobile broadband services, we need to look at all potential resources for spectrum repurposing—including Federal Government users. The GAO recently reported that the total percentage of the most highly-valued spectrum exclusively or predominantly used by the Federal Government is

as high as 57 percent. Given Federal agency budgets, many of these systems are not up-to-date and thus operate inefficiently, and some Federal uses could be served by commercial mobile providers. Are there specific instances in which you believe Federal spectrum could be operated more efficiently?

Answer. Yes. To give one example, I believe that it would be possible to clear Federal users from the 1755–1780 MHz band and repurpose that band for commercial use.

Question 5. In addition to this Committee I also serve on the Armed Services Committee. I have started to look at ways we can incentivize Federal agencies—including the Department of Defense—to clear or share spectrum, to free up more spectrum for commercial auction. Based on your experience working with Federal spectrum users, what ideas can you offer for creating such incentives?

Answer. Federal users currently do not have the same incentives as commercial operators to use spectrum efficiently. Therefore, I agree that we need to focus on providing Federal agencies with additional incentives to become more efficient in their spectrum usage. Many creative ideas have been offered to do just that. Some proposals, for example, offer financial rewards to agencies that are able to reduce their spectrum footprint. Others seek to penalize agencies that are not using their spectrum resources efficiently. At this point, I am not prepared to endorse any specific proposal but would encourage Congress to take a close look at this issue.

Question 6. Last year Congress passed a Rubio-McCaskill resolution, S.Con.Res. 50, stating that Internet infrastructure and content should remain free from international regulation. Members of the U.S. delegation to the ITU conference in Dubai have indicated that Congress sending a clear message on the issue was helpful in their negotiations and that our efforts on this issue should continue, especially since those nations that want greater regulation of Internet infrastructure and content will certainly continue in their efforts. What more can Congress be doing to help promote a free and open Internet around the world?

Answer. Making the Rubio-McCaskill resolution the official policy of the United States would send a strong, bipartisan message to the world that we support a free and open Internet.

Question 7. A handful of countries, such as China and Iran, want to heavily censor the Internet content people can access inside their borders, while many other nations are simply looking for ways to generate revenue from Internet traffic that moves through their country, much in the same way they have done with voice communications for years. Are there policies the United States can and should be promoting around the globe to help other nations develop their telecommunications infrastructure, unleash the economic activity that comes with it, and thus remove their desire to use global Internet traffic as a revenue source?

Answer. The United States will not be a credible voice in favor of Internet freedom abroad unless we adopt the right policies here at home. Therefore, Congress and the Commission should lead by example and refrain from initiatives to increase government regulation of the Internet. One small but important step the Commission could take would be to close the so-called “Title II” docket, which contains a proposal to subject broadband Internet services to onerous common carrier regulation.

Question 8. The upcoming incentive auctions have been pitched to Congress as a market-based mechanism that would help put spectrum in the hands of those most capable of unleashing its economic potential. That was an appealing idea, and on that basis Congress authorized you to conduct them. Now there is some concern that the Commission is contemplating going beyond what will be freed up by the auctions and is considering repurposing or reallocating many more megahertz in rural areas just through repacking broadcasters and eliminating LPTV and translator service. Is your intention to deal only with what is freed up by auctions, or is your intention to reallocate as much spectrum from broadcasters to broadband providers as possible?

Answer. In the record, there is a substantial dispute between parties supporting a so-called “variable band plan,” meaning that more spectrum would be reallocated for mobile broadband in some markets than in other markets, and parties supporting a nationwide band plan, where the same amount of spectrum would be reallocated for mobile broadband across the Nation. Were the Commission to adopt a variable band plan, it is quite likely that more spectrum would be repurposed in less populated areas than in the Nation’s most heavily populated markets. At this time, I haven’t reached any conclusions as to whether the Commission should adopt a variable band plan or a nationwide band plan. This question presents complicated legal, technical, and policy issues, and I look forward to working with my colleagues

to develop a band plan that is consistent with our statutory authority and serves the best interests of the American people.

Question 9. Has the Commission studied the impact of reclaiming spectrum on LPTV and translator service, especially in more rural states that rely heavily on them to reach areas where no other service is available?

Answer. In my separate statement on the Notice of Proposed Rulemaking in the incentive auction proceeding, I specifically highlighted the importance of translators to rural America and asked what the Commission could do, consistent with our legal authority, to ensure that this vital communications link for rural America is not broken. As we move forward in this proceeding, I believe that the FCC must study this issue carefully.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. RICHARD BLUMENTHAL TO
HON. AJIT PAI

Broadband Competition

Question 1. In 2010 the FCC stated in the National Broadband Plan that, “. . . there are reasons to be concerned about wireline broadband competition in the United States. Whether sufficient competition exists is unclear and, even if such competition presently exists, it is surely fragile.”

The plan further stated that, “To ensure that the right policies are put in place so that the broadband ecosystem benefits from meaningful competition as it evolves, it is important to have an ongoing, data-driven evaluation of the state of competition,” and that “additional data are needed to more rigorously evaluate broadband competition.”

The Plan specifically recommended the Commission undertake a number of reforms to data collection including:

1. “[C]ollect broadband availability data at the census block level, by provider, technology and offered speed.”
2. “[C]ollect data on advertised prices, prices actually paid by subscribers, plans, bundles and promotions of fixed and mobile broadband services that have material penetration among users, as well as their evolution over time, by provider and by geographic area.” The Plan stated that in particular, it “is crucial that the FCC track and compare the evolution of pricing in areas where two service providers offer very high peak speeds with pricing in areas where only one provider can offer very high peak speeds.”
3. “[C]ollect information related to switching barriers, such as early termination fees and contract length.”

The National Broadband Plan also recommended that the Commission establish a general policy of making the data it collects available to the public, including via the Internet in a broadband data depository.

These recommendations reflect the comments of the Department of Justice, who told the Commission that it “. . . should expand its efforts to include an assessment of the nature and extent of competition in each local broadband market.”

Nearly two years after the National Broadband Plan was released, the Commission issued a Notice of Proposed Rulemaking (NPRM) that encapsulated many of these recommendations. The Commission has yet to act on this NPRM.

Chairman Genachowski, Commissioners McDowell, Clyburn, Rosenworcel and Pai, do you agree with the National Broadband Plan’s recommendations on the need to collect these additional broadband data? Do you think the Commission, policymakers and the public have the appropriate data to determine if the Commission’s competition policies are, in the words of the Department of Justice, using the appropriate “policy levers . . . to produce superior outcomes,” and if not, what additional data is needed?

Answer. I agree with the National Broadband Plan that good policy starts with good data, including data about the preferences consumers themselves reveal through their spending habits. For example, we continue to collect data each year on wireline broadband deployment but much less data on wireless alternatives, whether terrestrial or satellite, even though consumers are increasingly substituting the latter for the former. The Commission may need to reevaluate its data collections accordingly.

Sports Blackouts

Question 2. Over one year ago, I wrote the FCC and requested the agency allow public comment on a petition for rulemaking asking the Commission to reexamine

the Sports Blackout Rule. This rule is nearly forty years old and, along with other Federal rules and league policies, is one of many obstacles making it unreasonably difficult for fans to watch their favorite teams play.

I thank the Commission for taking my letter seriously and opening a Notice of Inquiry (NOI) to solicit comments from the public and other stakeholders. However, that docket was opened in January of 2012 and the Commission has yet to take any further action.

The response in the proceeding was overwhelming. The NOI garnered thousands of comments from consumers impacted by local sports blackouts, including elderly and disabled sports fans unable to attend live games. The NFL's revised local blackout policy seems to have done little in the last regular season to help the most heavily impacted markets. Commenters have proposed several options, including preserving the status quo, eliminating the Sports Blackout Rule altogether, or adopting a sunset period requiring a public interest showing to renew the rule.

Chairman Genachowski, Commissioners McDowell, Clyburn, Rosenworcel and Pai, what else can the Commission do to help fans unable to watch their favorite teams compete?

Answer. Since taking office, I have met with parties supporting and opposing the Sports Blackout Rule. And as a sports fan myself, I understand the passions that this issue generates. At this point, I have not yet reached any firm conclusions as to whether the Sports Blackout Rule should be eliminated, modified, or retained. Should the Chairman circulate an item addressing the Sports Blackout Rule, I will approach the issue with an open mind and give careful consideration to all of the evidence that has been placed in the record.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. DEAN HELLER TO
HON. AJIT PAI

I appreciate the testimony and your candid answers during the hearing. I would like to thank you for your service on the Federal Communications Commission.

Question 1. The hearing touched on many themes that I believe the Committee should look at including process reform, the looming transition to IP and the Spectrum auction. However, an opportunity for the Chairman and the Commissioners to share what they see "over the hill" was not discussed at length. I would like to provide you with an opportunity to share what you believe are some issues that may not have been discussed at the hearing.

Answer. I believe that facilitating the deployment of wireless infrastructure will be an important challenge for the Commission going forward. While making additional spectrum available for mobile broadband is critical, in order to use that spectrum, carriers will have to deploy additional physical infrastructure, such as towers, small cells, and distributed antenna systems. We therefore need to look at how we can remove unnecessary regulatory barriers to the deployment of wireless infrastructure, and I am pleased that the Commission is currently studying that issue carefully.

Question 2. The spectrum auction is of the utmost importance. Is the Commission going to set a target date of 2014?

Answer. The Notice of Proposed Rulemaking in the incentive auction proceeding, issued in September 2012, stated that the Commission anticipated holding the incentive auction in 2014. In my view, 2014 should continue to be our target date, and we should work to meet that objective.

Question 2a. What are the challenges with hitting this date?

Answer. The most difficult issues on the horizon are the configuration of the band plan, the design of the auction, the mechanics of the repacking process, and coordination with Canada and Mexico.

Question 3. The Commission's spectrum incentive auction process has the potential for channel reassignment. Nevada has over 300 translators and low power TV stations, any repacking will put a significant burden on these stations. Is the FCC taking this into consideration? Can the Commission preserve viewer access to local channels and still hit the target of 2014 for the auction to take place?

Answer. In my separate statement on the Notice of Proposed Rulemaking in the incentive auction proceeding, I specifically highlighted the importance of translators to rural America and asked what the Commission could do, consistent with our legal authority, to ensure that this vital communications link for rural America is not broken. As we move forward in this proceeding, I believe that the FCC must give this issue careful consideration. At this point, I believe that it is possible for us to address this issue and meet our 2014 target for holding the incentive auction.

Question 4. According to the National Broadband Plan wireless backhaul is “critical to the deployment of wireless broadband and other wireless services,” particularly “when fiber is not proximate to a cell site.” I understand that the existing wireless backhaul networks face a number of regulatory and technological constraints that limit their potential capacity. These independently-powerable services are also important to undergird FirstNet, the national first responder network. How is the FCC working to speed the deployment of wireless backhaul services in new frequency bands?

Answer. I agree with the National Broadband Plan’s characterization of the importance of wireless backhaul. As I mentioned in my statement supporting an August 2012 order reforming the FCC’s microwave backhaul rules, “Wireless backhaul in particular can be a vital network component in areas where wireline infrastructure, such as fiber or copper, is difficult or prohibitively expensive to deploy. Facilitating greater use of wireless backhaul thus can enable infrastructure investment and help address our pressing spectrum needs.” Statement of Commissioner Ajit Pai, Amendment of Part 101 of the Commission’s Rules to Facilitate the Use of Microwave or Wireless Backhaul and Other Uses and to Provide Additional Flexibility to Broadcast Auxiliary Service and Operational Fixed Microwave Licenses; Petition for Rulemaking filed by Fixed Wireless Communications Coalition to Amend Part 101 of the Commission’s Rules to Authorize 60 and 80 MHz Channels in Certain Bands for Broadband Communications, WT Docket No. 10–153, RM–11602 at 1 (Aug. 3, 2012), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC–12–87A6.pdf.

Since 2010, the Commission has been reviewing and revising its rules to facilitate microwave wireless backhaul. Specifically, it has made an additional 650 MHz of additional spectrum available for wireless backhaul, mostly in rural areas. It has eliminated unnecessary rules that have hindered deployment in the microwave bands. It also has revised its antenna standards in certain bands in order to lower deployment costs.

Another important step to speeding the deployment of wireless backhaul services has been the establishment of build-out requirements in the microwave bands to ensure that licensees construct networks in a timely fashion. For the 24 GHz Band microwave service, Local Multipoint Distribution Service (LMDS) in the 28 and 31 GHz bands, and the 39 GHz Band microwave service, all licensees must demonstrate substantial service at the end of their 10-year license term in order to obtain a renewal. In 2008 and 2010, the Wireless Telecommunications Bureau granted extensions of the build-out deadline until June 1, 2012 to licensees in the 24 GHz, 39 GHz, and LMDS bands with the expectation that the licensees would deploy networks and provide service within the extended timeframe. As a result, these licensees had at least eleven-and-a-half years to meet their build-out requirements.

Question 4a. What is the current state of wireless backhaul deployment in the 24 and 39 GHz bands?

Answer. Most wireless backhaul deployment has occurred in the microwave bands below 24 GHz and 39 GHz. However, IDT Spectrum, which holds 742 licenses, and Spectrum Holding Technologies, which holds 199 licenses, have reported to the Commission that they have met the build-out requirements for their licenses in the 39 GHz band.

Question 4b. Has any company tried to develop new technology that is optimized for wireless backhaul in these new frequency bands?

Answer. The licensees in the 24 and 39 GHz bands confirm that equipment is available for wireless backhaul in these bands.

Question 5. The FCC has moved to reclaim wireless backhaul spectrum in the 24 and 39 GHz range from a number of wireless backhaul providers despite the providers request for additional time to complete their roll-out.

If the FCC ultimately reclaims spectrum in the 24 and 39 GHz range, how long will it take, including the necessary legal proceedings, for a new wireless backhaul provider to build-out a backhaul service with the seized spectrum?

Answer. In general, once a licensee forfeits a license and it reverts back to inventory, the FCC can move directly to re-auction that spectrum. With respect to the 24 GHz and 39 GHz licensees at issue here, however, a bankruptcy court injunction currently prohibits the Commission from reassigning those licenses until the previous licensee exhausts its appeal rights. In light of this fact as well as other contingencies, I cannot state with specificity how long it would take a new wireless backhaul provider to build out a backhaul service with the seized spectrum.

Question 6. In at least one case on Appeal to the Full FCC Commission, a significant wireless backhaul provider, from whom the FCC seized spectrum, has proposed an aggressive build-out plan that will have its wireless backhaul network up and

running in 18 months. If the FCC were to prioritize the rollout of wireless backhaul services, would it be more expedient to grant an 18 month extension and allow a planned expansion to move forward or can the FCC clear the spectrum and find another company to build-out the necessary wireless backhaul in less than 18 months?

Answer: FiberTower's application for review has been placed before the full Commission for consideration. I am currently in the process of reviewing the record that has been compiled in the proceeding and will carefully consider all relevant facts as well as the applicable law in reaching a decision in this matter.

Question 7. Will the FCC work to ensure that it takes all appropriate actions, including reviewing prior staff-driven efforts intended to strip existing wireless backhaul providers of their spectrum, to speed the build-out of needed wireless backhaul services?

Answer: I will give thorough consideration to FiberTower's pending application for review. I also will work to ensure that the Commission continues to take all appropriate actions to promote the availability of wireless backhaul.

