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HEARING

BEFORE THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED NINTH CONGRESS

SECOND SESSION

MARCH 2, 2006

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED NINTH CONGRESS

SECOND SESSION

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THURSDAY, MARCH 2, 2006

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

The Committee met, pursuant to notice, at 10:02 a.m. in room SD–562, Dirksen Senate Office Building, Hon. Conrad Burns, presiding.

OPENING STATEMENT OF HON. CONRAD BURNS, U.S. SENATOR FROM MONTANA

Senator BURNS. [presiding] Could the witnesses take their place at the table, Senator Stevens is tied up on the floor, and Senator Inouye is involved out there, probably down in Armed Services, or something. Don't know where he is. But you might be looking at the only Senator you're going to be talking to today, and I know that's sort of disappointing, but nonetheless, I was told to open this hearing up and they'll be along later. I think this hearing on the distribution part of USF is probably the most important hearing that we'll have. We looked the other day at the contributions part of it, making sure that that's fair and equitable to everybody, and now today is the second of these two hearings that deals with the Universal Service Fund.

At stake in this debate is no less than the future of rural America. For those who say that Universal Service no longer makes sense or that it should be repealed or scaled back I encourage them to visit states like Montana and Alaska and other rural areas and see the Fund in action. The day has not arrived when technology and the free market can make affordable telecommunications services available everywhere. Simply put, there's a lot of dirt between light bulbs in Montana. You've heard me say that 1,000 times. I was asked the other day to explain that. Competition and technology have not changed that. Until that time arrives, Universal Service funds are the only alternative. As we look at revising Universal Service, we need to keep foremost in mind that without support from the Universal Service Fund phone bills in high-cost areas around the country would increase dramatically. For example an average Montanan living in a rural area would pay an additional $329.97 each year to receive telecommunications services. Many of our schools and our schoolchildren would not have access to the Internet; vital to help them do their homework, conduct research and compete in a global economy. Many people in remote communities would not have access to healthcare using the Internet—an important issue in Montana where many counties do not even have

a doctor. I think I've got 13 counties. We also have an aging population in rural areas, so we deliver healthcare in a different way than we did years ago.

That is not to say that changes do not need to be made to the Universal Service Fund. Recently, the amount of money distributed by the Fund has been increasing, impacting the ability of the Fund to keep up with its demand. Much of the current Fund growth can be attributed to the rapid increase in funding provided to wireless carriers who have become eligible for Universal Service payments. Among the issues we need to address include clarifying the purpose of Universal Service support. It is the purpose of the Fund to promote competition in rural areas, rural service, or both. To what extent, if at all, should broadband service qualify for Universal Service support? Another issue is what types of discipline and accountability should be implemented to control the growth of the Fund and ensure its survival.

These and other challenging issues have made it necessary for Congress to take a look at revising the way Universal Service funds are distributed. We must make sure the law keeps pace with this changing landscape. In this regard, on February 8th of this year, the 10th anniversary of the Telecommunications Act, I introduced S. 2256, The Internet and Universal Service Act of 2006. I call it NetUSA, to revise the Universal Service Fund to adapt to the radically changing telecommunications landscape.

Any distribution mechanism must ensure that Universal Service support distributions are fair, that they are equitable, and competitively neutral. At the same time, maintaining a sustainable Universal Fund requires the recipient to be accountable for how that support is used. We need to not only control the growth of the Fund, but to make sure the funds are going where they are needed, and invested in advanced technology. In other words we have to protect the integrity of the Fund.

My NetUSA bill will shore up the Universal Service Fund, ensuring that investment in a ubiquitous, advanced telecommunications infrastructure that can continue to all corners of the country. In general, the NetUSA bill would broaden the base of contributions into the Fund, and it would govern more prudently the distributions of the funds.

With respect to distribution, the bill requires the Federal Communications Commission to ensure that companies that receive Universal Service Fund support invest in and deploy broadband infrastructure in rural and high-cost areas. We must ensure that these funds are used to accelerate the deployment of broadband so that the U.S. becomes a world leader in broadband deployment. Right now we're a little behind.

The NetUSA bill also controls the growth of the Fund by making the eligibility rules for receiving the support competitively neutral and targeting the Universal Service to high-cost areas. Specifically, to be eligible for Universal Service Fund support a carrier one, must offer any calling plan comparable to the incumbent local phone carrier. Offer services under the requirements to protect customers and promote public health, safety, and welfare applied to incumbent phone carriers, and offer services substantially over its own facilities, commit to use any Universal Service support re-

ceived to achieve coverage of the entire service area within 2 years of the date of designation.

Moreover, the bill ensures the integrity of the Schools and Libraries Program. To deter waste, fraud and abuse, my bill strengthens the FCC's management and oversight, including imposing sanctions on program violators. And it requires the Federal Communications Commission within 180 days of the enactment to establish rules regarding the Schools and Libraries Fund. And one, identifying appropriate fiscal controls and accountability standards; defining the role of USAC; creating performance goals and measures; establishing appropriate enforcement actions, including sanctions such as debarment for applicants or vendors who have been convicted of crimes or held civilly liable in connection with the program.

This Universal Service Fund is but one of many instances where the rapid change of technologies and the rise of competition have created many challenges in the telecommunications industry. And I look forward to speaking with everybody at the table today. I think we have a broad spectrum of folks here, who represent different segments of our industry, and let me tell you it's a pleasure to have you here today; we look forward to your testimony because right now, we have great challenges ahead and only through you can we solve some of these challenges. And I appreciate you coming today.

[The prepared statement of Senator Stevens follows:]

PREPARED STATEMENT OF HON. TED STEVENS, U.S. SENATOR FROM ALASKA

Earlier this week we held a hearing about the funding of the Universal Service program. Today, we address the way those funds are spent. This hearing will examine what Universal Service should support, and who should get money out of Universal Service relative to who pays in.

The changing face of communications demands that we reexamine the way Universal Funds are being spent and to what purpose. There have been many successful programs supported by USF, but there have also been some programs that could use some fine tuning. Today, we will listen to various parties in order to learn how the distribution of Universal Service funds might be improved in light of new realities in the marketplace and changes in technology.

In a competitive world we need to understand how we maintain America's technology position in the world and what communications infrastructure we need to support that position, particularly in rural areas.

I look forward to hearing how Universal Service funds can be used to encourage the deployment of broadband and other advanced services to all Americans as quickly as possible.

Senator BURNS. Senator Smith, from Oregon do you have an opening statement and welcome.

STATEMENT OF HON. GORDON H. SMITH, U.S. SENATOR FROM OREGON

Senator SMITH. I do Senator, thank you. I guess we've both got bills trying to do much of the same thing, but as I noted in our hearing earlier this week, it's become increasingly clear that major reforms are imperative if the Universal Service Fund is to meet the evolving communication needs of the American people. To this end I have introduced the Universal Services for 21st Century Act with Senators Dorgan and Senator Pryor, a bill that will stabilize and broaden the basic contributions to the Fund and bring the benefits

of high-speed Internet networks to unserved areas of our country. Presently the Universal Service System provides no direct funding for broadband networks except to schools and libraries. As Members of this Committee are very well aware, Americans increasingly rely on their high-speed Internet connections to communicate and conduct business. Many rural and high-cost areas of the country, however have limited or no access to these broadband networks. So to ensure that all Americans have access to the most advanced communications networks in the world, my bill allocates $500 million annually to fund construction of broadband infrastructure. This new broadband for unserved areas account will be capped at $500 million each year, and made available to one facilities-based provider in unserved areas on a merit based and competitive basis. The focus is rightly placed on infrastructure, efficiency and discipline and spending. Universal Services for the 21st Century Act will bring broadband to more Americans, spur economic development in rural and high-cost areas, and make America more competitive globally. In the most recent international telecommunications union study, the United States fell from 13th to 16th in the global broadband penetration. This investment in broadband infrastructure is the solution to this disturbing trend. By reaffirming and stabilizing Universal Service, and using the Fund to spur the development of broadband networks, our legislation will ensure that our Nation's communication infrastructure will continue to grow and be the robust and connected network that Americans expect and that Americans deserve. Thank you.

Senator BURNS. Thank you, we've been joined by Senator DeMint from South Carolina, who has an interest in this and rural telecommunications, and I look forward to hearing your statement.

STATEMENT OF HON. JIM DEMINT,
U.S. SENATOR FROM SOUTH CAROLINA

Senator DEMINT. Thank you, Senator. And I want to thank the witnesses too. I appreciate you being here. I know you represent a lot of interests that are benefiting from the Universal Service Fund. It was interesting this week—I was talking to a friend from back home, we had a conversation and he finally mentioned that he wasn't going to be home for a week. And I said: "Where are you?" He was on a remote river bank in Chile, looking at a development opportunity, and talking on a satellite phone. And as I approach this hearing I guess the thing that strikes me, is that he was getting good service and in fact I think we're in a position with the technology we have today, he could have high-speed broadband service on a remote river bank in Chile. And with the opening of the whole video analog spectrum, the technology changes in the next few years will be dramatic.

But there were no Universal Service funds to provide that service in Chile. The fact is the Fund was built on a lot of assumptions, the assumption that we had to have a lot of hardlines and other things to serve rural America. A lot of these things are changing. And the challenge I'd like to give to you today, is that the current Universal Service Fund is unsustainable. Over the next 10 years, $500 billion, an incredible amount of money, will be spent—particularly considering the other things that we need to deal with as

a nation of health care and Social Security, that are also unsustainable. There's no question that the Universal Service Fund has played an important function that we need to get service to rural areas. But at this time, when we realize that this Fund is unsustainable, it's very important that we prioritize where these funds are needed. We know the Chairman of this Committee is looking out for Alaska, and the vast open spaces there, and that we're going to continue to need additional funds to make sure people are served. But I know there are places even in my state within only a few miles of a major metropolitan area, where there are a number of rural communication companies being sustained by the Universal Service Fund, that really don't need it. With all of the opportunities around we have to make some hard choices. So if your purpose of being here today is to defend the status quo, frankly it's not going to do this Committee much good, because we have to make hard decisions. If your purpose of being here today is to defend the current basis of how we reimburse or pay out the Universal Service Fund, which is cost-based. And we've seen what that's done in year's past to health care and other services where it runs up the cost, it discourages competition, it does not encourage efficiencies and productivity. If you're here today to defend that, it won't help us, because this Committee needs to make some hard decisions. We need to get control of the cost of Universal Service funds, we need to make sure that rural areas are served but we need a lot of new thinking. Because the Fund will not continue to grow at its current rate, it will just not, it cannot.

The Nation's priorities are going to have to rearrange how that money is spent. So I appreciate your being willing to come here today; but I'm listening for ideas on how we can make less money go further and meet the needs of rural areas whether they are in Montana or Alaska, but I am looking forward to your testimony and I yield back, Senator.

Senator BURNS. Thank you very much, Senator. We'll just start off this morning, and we have Jeff Mao, Coordinator of Educational Technology, Maine Department of Education from Augusta, Maine. We got an Augusta, Montana you know.

STATEMENT OF JEFF MAO, COORDINATOR OF EDUCATIONAL TECHNOLOGY, MAINE DEPARTMENT OF EDUCATION

Mr. MAO. Thank you. Good morning, Senator Burns, Senator Smith, Senator DeMint, Members of the Committee, thank you for the opportunity to testify today. My name is Jeff Mao; I am the Coordinator of Educational Technology for the Maine Department of Education. My responsibility for the Department is the implementation of Maine's 1 to 1 laptop program, the Maine Learning Technology Initiative that provides wireless laptop computers for all 7th and 8th grade students and their teachers in the State of Maine.

I appreciate the opportunity to share with the Committee how Maine has leveraged the support that E-Rate provides our schools and libraries to improve both the equitable distribution of universal broadband and the resources available to schools and libraries in our State.

The E-Rate program provides the foundation on which Maine's innovative technology programs are built. In order to sustain these

programs, it is critical that the E-Rate program continue to exist and to provide secure funding to support the continued deployment and maintenance of broadband services statewide. If the E-Rate program were to cease to exist, it would undoubtedly lead to significant setbacks in the progress of these innovative programs as well as the deployment and availability of broadband services throughout the State.

Maine established the Maine School and Library Network in order to ensure universal broadband access for all of Maine's schools and libraries. In order to ensure stability and longevity of the Maine School and Library Network, Maine's Legislature established the Maine Telecommunications Education Access Fund in 2001. In addition, the legislation established that all schools and libraries receiving services from the Maine School and Library Network would be required to apply for Federal assistance through the E-Rate program. All Maine citizens and businesses contribute to the Maine Telecommunications Education Access Fund, matching the Federal assistance Maine receives from E-Rate. Today, broadband services in schools and libraries are funded by E-Rate and the Maine Telecommunications Education Access Fund. The Maine School and Library Network is available to all schools and libraries, providing universal broadband services to over 900 schools and libraries in all corners of Maine.

The Maine School and Library Network is both technically and figuratively the backbone of educational technology efforts in the State of Maine. I'd like to outline three of our education technology programs. In March of 2000, Governor Angus King announced plans to create a statewide 1 to 1 learning initiative. Maine has invested over $38 million in the Maine Learning Technology Initiative. Over the past 4 years the program has provided 1 to 1 wireless laptop computers to approximately 68,000 students in 7th and 8th grade, and over 3,000 teachers statewide. This includes the large urban schools of Lewiston, Portland, and Auburn, and the small schools in rural areas like Eastport, Madawaska, and Monhegan Island.

The State also provides ongoing professional development for teachers, principals, and technology coordinators throughout the year, and installed wireless networks in all 236 middle schools. Every day teachers and students utilize digital tools and resources now available to them at school from their broadband connection.

The Maine Learning Technology Initiative is equitably and universally deployed to all Maine schools, regardless of rurality or economics.

In 1998, Maine established the Maine Distance Learning Program. It was established to provide the geographically dispersed population of Maine students and teachers a way to connect and share. The State of Maine invested $15 million to create interactive video conferencing classrooms. Today, 91 classrooms connect over broadband with high quality audio and video feeds.

This year, 28 high school course offerings are being taught over the system including high-need courses such as AP Physics and AP Calculus. These are hard-to-find classes in small rural schools. In addition, courses like Japanese and American Sign Language are

taught over the system. These courses are rarely available in small rural schools and sometimes not even in our larger schools.

One example, in North Anson, a small rural town in Central Maine, 50 percent of the adult population in this town does not have a high school degree. Their high school has less than 300 students and yet Carrabec High School has increased its AP course offerings through the use of the system from two to eight. Today, the school's "College Hall of Fame" celebrates graduates now attending schools like the University of Michigan, Columbia University, and MIT.

Finally, Maine began its virtual library in 2000. *MARVEL!* provides every resident of Maine with access to a collection of full text and abstracts from magazines, newspapers and reference books. Any one public library or school could spend over $500,000 to purchase the content available through *MARVEL!*. Now even the smallest school or local library has access to vast collections of information. Without the Internet access supported by E-Rate, *MARVEL!* would not be universally available to all Maine students from school and to all Maine citizens from their public libraries.

These opportunities would not be possible were it not for the E-Rate. These investments all grew from the E-Rate funding, which provided the ability to leverage state funds for the creation of the Maine School and Library Network, which provides broadband Internet connectivity to Maine's schools and libraries. These programs are key components in Maine's strategy to ensure that Maine students meet and exceed local, state, and Federal requirements including No Child Left Behind. Maine is preparing its students for the 21st century, and the E-Rate program has formed the foundation. Without the E-Rate program, the future of all of these innovative programs would be put in jeopardy. The continuation of the E-Rate program is critical to Maine's students and Maine's future.

Thank you again, for the opportunity to share with you the positive impact that the E-Rate program has had on the students and citizens of Maine.

[The prepared statement of Mr. Mao follows:]

PREPARED STATEMENT OF JEFF MAO, COORDINATOR OF EDUCATIONAL TECHNOLOGY, MAINE DEPARTMENT OF EDUCATION

Chairman Stevens, Ranking Member Inouye and members of the Committee, thank you for the opportunity to testify today. I am Jeff Mao, Coordinator of Educational Technology for the Maine Department of Education. My primary responsibility is the implementation of Maine's 1 to 1 laptop program, the Maine Learning Technology Initiative that provides wireless laptop computers for all 7th and 8th grade students and their teachers, teacher and technical training, and support to all of Maine's middle schools. In addition I provide direct support to schools for their local educational technology efforts.

I appreciate the opportunity to share with the Committee how Maine has leveraged the support that E-Rate provides our schools and libraries to improve both the equitable distribution of universal broadband and the resources available to students, teachers, and our public libraries.

Maine has a long tradition of innovation in, and support for, education. In recent years, Maine has embraced the use of technology to improve the quality and scope of educational resources available to students and lifelong learners throughout the state. Thanks to the E-Rate program, Maine has been able to leverage state funds to make broadband service available to schools and libraries statewide. The E-Rate program provides the foundation on which Maine's innovative technology programs are built. In order to sustain these programs, it is critical that the E-Rate program

continue to exist and to provide secure funding to support the continued deployment and maintenance of broadband services statewide. If the E-Rate program were to cease to exist, it would undoubtedly lead to significant setbacks in the progress of these innovative programs as well as the deployment and availability of broadband services throughout the state. The continuation of the E-Rate program is critical to Maine's students and Maine's future.

E-Rate and the Maine School and Library Network (MSLN)

Maine established the Maine School and Library Network in order to ensure universal broadband access for all of Maine's schools and libraries. In 2001, Maine's Legislature established the Maine Telecommunications Education Access Fund (MTEAF, 35–A M.R.S.A. Section 7104–B) that required all telecommunications providers in Maine to contribute to a fund, which would be used to support the Maine School and Library Network. In addition, it established that all schools and libraries receiving services from the Maine School and Library Network would be required to apply for Federal assistance through the E-Rate program. All Maine citizens and businesses invest in the Maine Telecommunications Education Access Fund, matching the Federal assistance Maine receives from E-Rate. Today, broadband services in schools and libraries are funded by E-Rate and the Maine Telecommunications Education Access Fund. The Maine School and Library Network is available to all schools and libraries, providing universal broadband services to over 900 schools and libraries in all corners of Maine.

The Maine School and Library Network is both technically and figuratively the backbone of educational technology efforts in the State of Maine.

Maine Statewide Educational Technology Programs

Maine Learning Technology Initiative (MLTI)

In March of 2000, Governor Angus King announced plans to create a statewide 1 to 1 learning initiative that would provide every student in grades 7 and 8 with a digital learning device. Today, the Maine Learning Technology Initiative program is in its fourth full year and is known around the world as the leading educational technology innovation. The program has provided 1 to 1 wireless laptop computers to approximately 68,000 students and over 3,000 teachers since the fall of 2002. The program installed wireless networks in every middle school in Maine, and provides on-going teacher and technical training throughout the school year. Teachers and students utilize digital tools and resources both on the laptops and on the Internet from Fort Kent to Kittery. Every middle school in Maine, from the small rural schools of Aroostook County to the coastal fishing communities in Washington County to the more urban cities of Lewiston and Portland are accessing online resources via State-funded wireless laptop computers. Teachers have invested countless hours at professional development workshops learning to leverage the resources now available to all of their students at school from their broadband connection. Teachers report that their teaching has been revitalized by the infusion of technology and new teaching methods, and students report they are more engaged and invested in their learning. The Maine Learning Technology Initiative follows in the footsteps of the Maine School and Library Network as the second major educational program that is equitably and universally distributed to all Maine students and schools regardless of rurality or economics.

Roughly 60 percent of schools allow their students to take their MLTI laptops home. While many families have purchased Internet access at home, not all do. While no total solution has been applied, the issue has been mitigated by two important programs. First, 68 public libraries have identified local funding sources to install wireless networks, allowing both students and patrons in general to visit the library and utilize the broadband service. The number of libraries offering wireless access is expected to continue to grow. Second, the Maine Learning Technology Foundation, founded by former Governor Angus King has raised private funds which are being used to pay for dial-up Internet access for students with a Maine Learning Technology Initiative laptop and who qualify for the Federal Free and Reduced lunch program.

Data from studies performed by the Maine Education Policy Research Institute (MEPRI) at the University of Southern Maine illustrate the impact of both the program, and it's reliance on broadband connectivity. A recent report [1] from MEPRI by

[1] "The Impact of the Maine Learning Technology Initiative on Teachers, Students, and Learning. Maine's Middle School 1-to-1 Laptop Program", Dr. David Silvernail, Ph.D., February 2006. Report was presented to the Joint Standing Committee on Education and Cultural Affairs, Maine State Legislature. Copies of relevant slides from the presentation are included as Appendix A.

the chief researcher, David Silvernail, Ph.D., included data from a recent survey done in the spring of 2005 of just over 1,100 teachers:

- 94 percent responded that having a laptop helped them access more up-to-date information.
- 93 percent responded that they could access more diverse teaching materials and resources.
- 90 percent responded that they could explore topics in greater depth with students.
- 89 percent responded that students were more engaged when using laptops.
- 89 percent responded that students were better able to study real-life issues/problems using laptops than without them.
- 87 percent reported that laptops facilitated students' ability to integrate information from multiple resources.
- 80 percent responded that data indicates technology is positively affecting student achievement.

In the same report, a survey of over 16,500 7th and 8th grade students in the program given in the spring of 2005 revealed similar findings:

- 96.2 percent responded that they were capable of effectively utilizing a search engine.
- 85 percent responded that they were more likely to edit their work when using a laptop.
- 73 percent responded that they were capable of effectively utilizing a spreadsheet to create graphs.
- 72 percent responded that they were more interested in school when using the laptops.

Also included in the report, a survey of 200 middle school principals showed that 89 percent saw the laptop program positively impacted improved student achievement in their schools.

Researcher Anne Davies, Ph.D. studied the affects of the MLTI program in a small rural school in downeast Maine. Her report, "Finding Proof of Learning in a One-to-One Computing Classroom" found that, "Students apply, analyze, synthesize, and evaluate information and knowledge more often." She also concluded, "Being a student in a one-to-one, high-speed, wireless computing classroom makes a difference for learning."[2]

The impact of the Maine Learning Technology Initiative for Maine has been significant. The implications of the project are far reaching. With ready access to wireless laptop computers that have broadband connectivity, teachers are enriching their curricula. Textbooks are becoming less important as current, varied, and often interactive resources and content can be gathered and accessed from the Internet. Not only could this yield future fiscal savings, but it means that teachers are given more flexibility to create and present content to their students. This allows teachers to individualize instruction as well as craft curriculum that best meets the needs of the students. Ultimately, this flexibility means that teachers will be able to better help students achieve and meet local, state, and Federal standards including *No Child Left Behind.*

The Maine Learning Technology Initiative is a successful innovation that continues to prove itself. It has been carefully designed and implemented based upon a few simple but powerful ideas, (1) One laptop, one student, equity for all, (2) Wireless access to broadband services in all instructional areas in every school provides access to boundless resources and provides a robust communications network, and (3) Teachers must be provided with the necessary training to leverage these newly available resources. These three ideas are like the legs of a stool, remove any one, and the stool will fall. E-Rate provides the broadband access. The State of Maine has invested over $38 million over the last four years to provide the computers, wireless networks, and the necessary teacher training.

Maine Distance Learning Project (MDLP)

In 1998, the Maine Distance Learning Project (MDLP) was established to provide the geographically dispersed population of Maine students and teachers a way to connect and share. The State of Maine invested $15 million to create interactive video conferencing rooms. Today, 91 classrooms and 11 sites funded by the Marine

[2] "Finding Proof of Learning in a One-to-One Computing Classroom", Dr. Anne Davies, Ph.D., April 2004. Copies of the full report are available from *http://www.connect2learning.com.*

Science and Biotech Initiative connect over broadband connections with high quality audio and video feeds. Up to 4 sites may connect in a fully interactive mode allowing schools to share resources.

This year, 28 high school course offerings are being taught over the system including high-need courses such as AP Calculus, AP Calculus AB, AP Statistics, AP Physics, and AP U.S. History. These courses would not typically be available to small rural schools which do not have the staffing or resources to provide these offerings. In addition, courses like Japanese language (first and second year), Environmental Science, and American Sign Language (first, second, and third year) are taught to students through the system.

Newsweek's article, May 16, 2005, "Other Winning Equations" by Dan Berrett and Dan Brillman featured one of Maine's schools in the Maine Distance Learning Program. Carrabec High School in North Anson is a small rural high school of fewer than 300 students serving a community where only 50 percent of the adults in the community have a high school degree. Carrabec High School expanded its AP course offerings from two to eight by utilizing both the Maine Distance Learning Program system as well as online course offerings. Carrabec High School's students are not the only students to benefit as they also provide coursework to other rural schools using the Maine Distance Learning Program system like Brendan Murphy's AP Calculus and AP Statistics courses. On Murphy's wall, a "College Hall of Fame" celebrates his students' achievements noting that this school year, among his graduated students, are some attending higher education institutions including MIT, Columbia University, and the University of Michigan.

Many regions have collaborated to a level not often seen. Not only do they share coursework over the system, they aligned their school bell schedules and vacation schedules so that all students from all of the schools would have equal opportunity to take advantage of the Maine Distance Learning Project course offerings. School consortiums in the most rural and remote northern and eastern areas of Washington, Aroostook, and Penobscot counties have worked together to facilitate collaboration and resource sharing.

The Maine Distance Learning Project system is used for more than course delivery. It also serves as a portal to the world allowing students to interact with people from different parts of the United States and the world. For example, students from Jonesport Beals, a small rural downeast coastal community use the Maine Distance Learning Project system to meet and talk with other students from Ireland who also live in a small rural fishing community. Students from Skowhegan interviewed World War II veterans living in Hawaii who were present at the Pearl Harbor attack. Many schools use the Maine Distance Learning Project system to provide job fair interviews with professionals in fields that do not exist in their own rural communities.

Maine Distance Learning Project is also used for virtual field trips allowing schools to expose students to new and exciting resources without having to lose valuable instructional time traveling or spend limited local funds on transportation expenses. Maine Distance Learning Project in conjunction with the Maine State Library, the Maine Department of Education, and the Mitchell Institute's Great Maine Schools Project have recently been awarded a grant from the Verizon Community Foundation to fund the creation of more virtual field trips related to Maine's Native American populations. Other organizations are also creating virtual field trips including the Penobscot Marine Museum (*http://www.penobscotmarinemuseum.org*) and PCA Great Performances (*http://www.pcagreatperformances.org*).

Maine's Virtual Library, *MARVEL!*

Maine began its virtual library in 2000. *MARVEL!* provides every resident of Maine with access to a collection of full text and abstracts from magazines, newspapers and reference books that are credible, reputable resources. *MARVEL!* also provides students, business people, public library patrons, and higher education students and educators the ability to search a number of resources at one time for needed information. The print value of the resources provided in these databases would be in excess of $500,000 per library. One example of cost savings is as follows:

- Maine has 214 schools (public and private) that contain grades 9–12.
- If one of these schools were to purchase just the EBSCO resources contained in *MARVEL!,* it would cost that school $16,800.
- If all of these 214 Maine schools purchased just the EBSCO materials on their own, the total cost would be $3,595,200.

The collaboration between the Maine State Library, the University of Maine, the Maine State Legislature, and the Maine Telecommunications Education Access Fund that funds the statewide licensing of these resources for every library and

resident of Maine is a truly cost-effective service that can benefit every Maine citizen. Without the Internet access supported by E-Rate, *MARVEL!* would not be universally available to all Maine students from school, and to all Maine citizens from their public libraries.

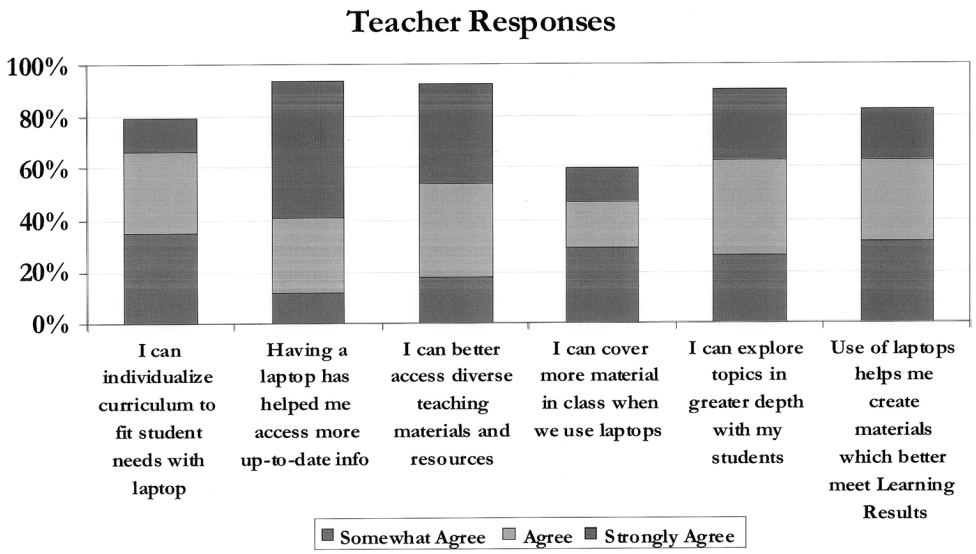
Conclusion

In keeping with its long history of innovation in education, Maine has embraced the E-Rate program and has used it to leverage millions of dollars in state and local funding for a wide range of technology programs. These programs are directly improving the learning opportunities available to students, teachers, and citizens throughout the state of Maine by making high-speed Internet access, distance learning, and innovative courseware available throughout the state. These learning opportunities are a critical part of Maine's efforts to catapult its students, businesses, and citizens into the 21st Century.

These opportunities would not be possible were it not for the E-Rate program. Maine's citizens, businesses, and State government have invested in the Maine Telecommunications Education Access Fund (including the Maine School and Library Network and *MARVEL!*), the Maine Learning Technology Initiative, and the Maine Distance Learning Project to provide unique and innovative opportunities for not only Maine students, but for all of Maine's citizens. These investments all grew from the E-Rate funding, which provided the ability to leverage state funds for the creation of the Maine School and Library Network, which provides broadband Internet connectivity to Maine's schools and libraries. These programs are key components in Maine's strategy to ensure that Maine students are ready for the 21st Century, and the E-Rate program has formed the foundation, which has allowed the State of Maine to build these innovative educational technology programs. Without the E-Rate program, the future of all of these innovative programs would be put in jeopardy. The continuation of the E-Rate program is critical to Maine's students and Maine's future.

Thank you again, Chairman Stevens, Ranking Member Inouye and Members of the Committee for allowing me this opportunity to share with you the positive impact that the E-Rate program has had on Maine's schools and libraries.

What are the impacts of the laptops on instruction?



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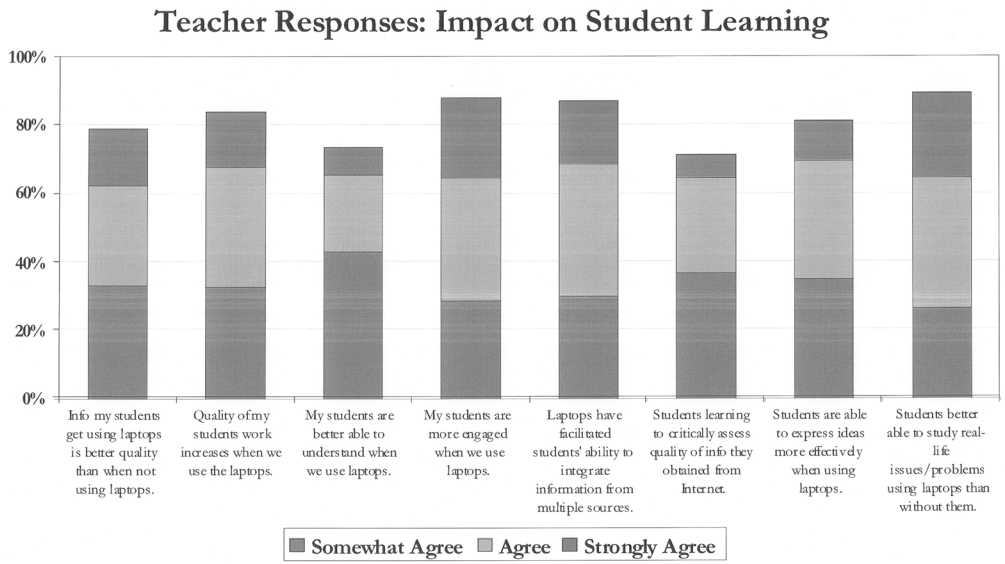

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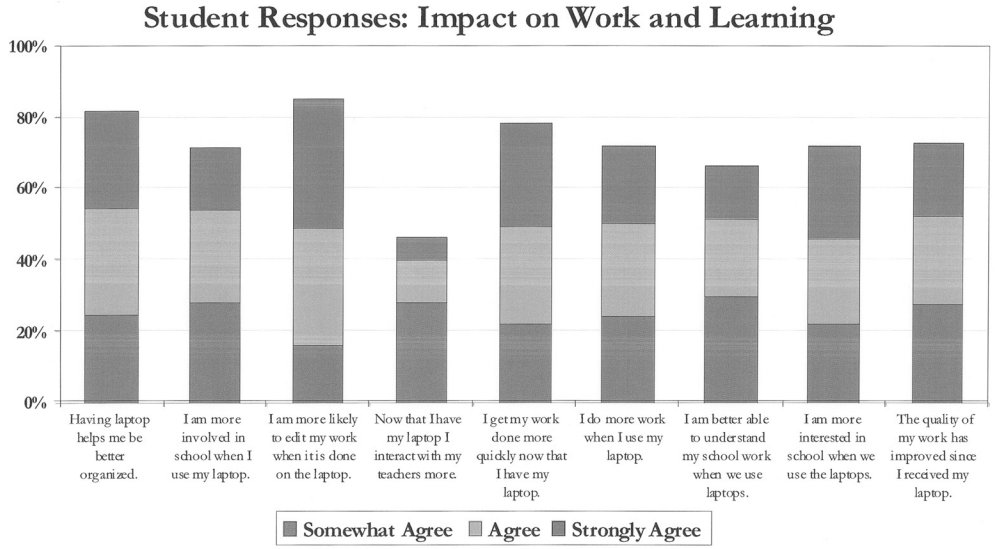

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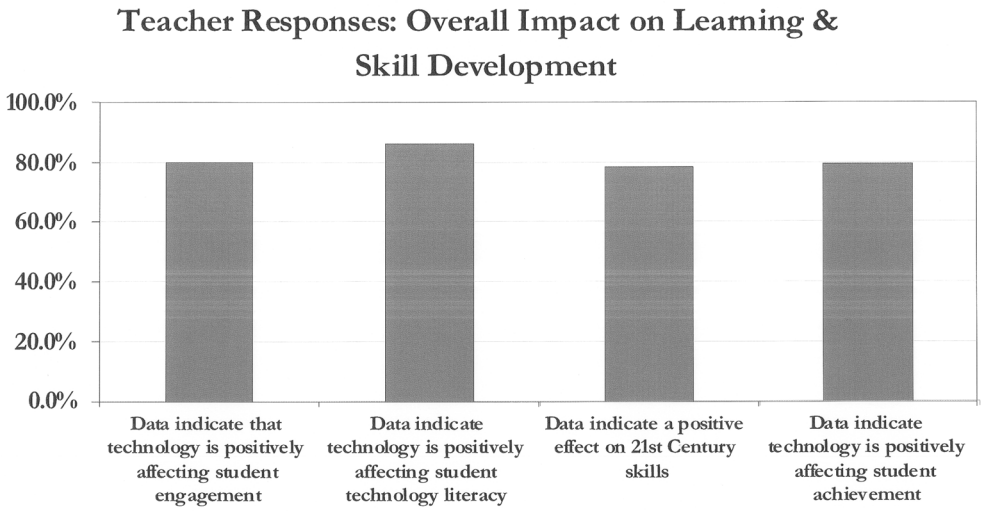

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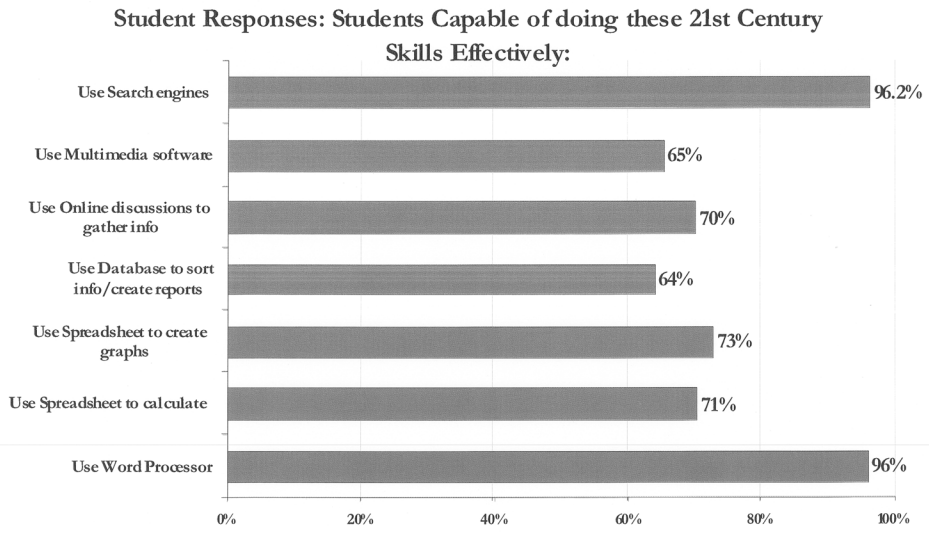

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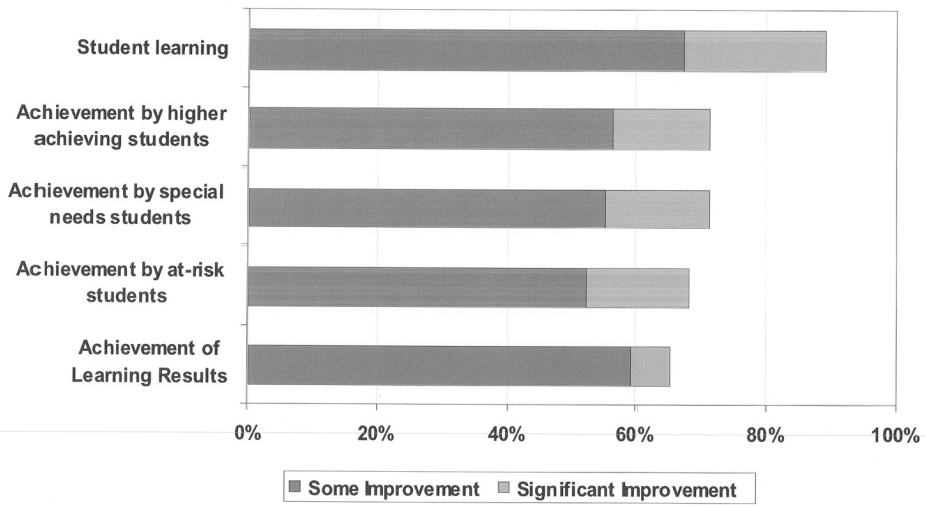


Excerpts from "The Impact of the Maine Learning Technology Initiative on Teachers, Students, and Learning. Maine's Middle School 1-to-1 Laptop Program", Maine Education Policy Research Institute, Dr. David Silvernail, Ph.D., February 2006.

Senator BURNS. Thank you very much, Mr. Mao. We have Shirley Bloomfield, Vice President, Government Affairs and Association Services, National Telecommunications Cooperative Association, the Voice of Rural Telecommunications.

STATEMENT OF SHIRLEY BLOOMFIELD, VICE PRESIDENT, GOVERNMENT AFFAIRS AND ASSOCIATION SERVICES, NATIONAL TELECOMMUNICATIONS COOPERATIVE ASSOCIATION ON BEHALF OF THE COALITION TO KEEP AMERICA CONNECTED

Ms. BLOOMFIELD. Well, thank you for the introduction. I think I'll skip that part. But I'm also here today to testify on behalf of the Coalition to Keep America Connected. And we thank you greatly for the Committee's leadership on Universal Service issues, particularly the legislation that some of you have introduced already.

The Coalition to Keep America Connected is organized by ITTA, NTCA, WTA, and OPASTCO and collectively our membership represents about 700 small and midsize communications providers. We serve seven million customers in rural America and we cover about 40 percent of the landmass. The coalition also has a vast number of folks who are members of it, including consumers, small business owners and local policymakers.

Universal Service has remained the cornerstone of our Nation's telecommunications policy for more than six decades, ensuring that we all enjoy the benefits of a nationwide integrated communications network.

Today, the program emphasizes an assurance that necessary cost recovery is available to those that make the commitment to serve the Nation's most economically challenging markets as is essential in this time of national and economic security.

The coalition has come up with four main principles that we would like to see, and put out on the table for future consideration. Support must be used to construct, maintain and upgrade networks to benefit all consumers and must not be voucher, auction, or block grant based. Support must be based upon a provider's actual cost of service. Support must not be used to artificially incite competition. On the first point, Universal support is for the deployment, maintenance and upgrading of telecommunication networks.

Telecommunications providers do not build networks one connection at a time. But rather, networks require substantial financial investment and are built to be scaleable and expandable to meet future consumer demands for new services and new technologies. Policies that would force carriers to build and maintain networks one connection at a time, ignore real-world economics and will create vast inefficiencies and increased costs to all consumers.

Today cost recovery support from the Universal Service program has a direct correlation to the carrier's actual investment and the cost of providing that service. This cost-based system has proven to work efficiently and effectively for over six decades. We believe this framework is the same framework that is going to get broadband out, to increase the penetration rates out all across America that we have seen in traditional voice service as well.

Our second principle requires that all Universal Service Fund recipients receive support based on their own costs. This will increase program accountability as well as reduce the demand for funds.

The vast majority of growth that has already been noted this morning in Universal Service is due to competitive eligible telecommunications carriers or ETCs. Universal Service support to competitive ETCs grew by over 115 percent in the last year. During this same period ILEC support grew by just less than .7 percent. As a percentage of the overall fund, CETCs accounted for approximately 1 percent of all Universal Service funds in 2000. At the end of 2005, the distributions have skyrocketed to about 18 percent of the high-cost portion of the Fund. This may seem like a very small percentage, but if left unchecked the Fund will become insolvent.

Finally many rural areas in our Nation can't support more than one gas station, grocery store or other commodity service let alone multiple communications providers. While rural carriers welcome competition in areas that can support it, Universal Service should not be used to artificially incite competition in areas it would otherwise not occur. In fact little competition is actually from 214(e). Most of the new funding for the existing wireless carriers are carriers who were already providing service in these markets. Tightening of the ETC requirements will ensure that Universal Service monies support the intended goal that this committee envisioned in 1996 of guaranteeing all Americans have access to comparable services at rates comparable to those in urban areas.

When deciding to grant ETC status the following qualifications should be met: The designation must ensure ubiquitous comparable rates and services and cover the entire ILEC market area; the benefits of the designation must not outweigh the burdens on the Fund and have the same quality of service, safety and other standards. The ETC must demonstrate the actual costs, and the funds should not be used to incite unnecessary artificial competition.

I would be remiss to not point out that our thoughts on Universal Service distribution are dependent upon some very key changes in the contribution side as well. The coalition believes the following steps need to be taken to bring contributions in line with the realities of today's communications marketplace. The base of contributors must be expanded to include all providers and using the underlying infrastructure, including but not limited to all providers of two-way communications regardless of technology. Support shall be made available for the cost recovery needs of carriers deploying broadband-capable infrastructure. The contribution methodology must be assessed on all revenues or a revenues hybrid that ensures equitable and nondiscriminatory participation. And regulatory authority should be allowed to mold and change as technology evolves and must be clarified and strengthened.

If the policy recommendations we've outlined were implemented, Universal Service would be on a sound footing and continue to play a key role in ensuring all Americans are connected to a high quality communications network.

Thank you very much and I look forward to your questions.

[The prepared statement of Ms. Bloomfield follows:]

PREPARED STATEMENT OF SHIRLEY BLOOMFIELD, VICE PRESIDENT, GOVERNMENT AFFAIRS AND ASSOCIATION SERVICES, NATIONAL TELECOMMUNICATIONS COOPERATIVE ASSOCIATION ON BEHALF OF THE COALITION TO KEEP AMERICA CONNECTED

Good afternoon. I am Shirley Bloomfield, Vice President of Government Affairs and Association Services for the National Telecommunications Cooperative Association. I am here today to testify on behalf of the Coalition to Keep America Connected. We thank you for the opportunity to testify before you.

The Coalition to Keep America Connected effort is organized by The Independent Telephone & Telecommunications Alliance, the National Telecommunications Cooperative Association, the Organization for the Promotion and Advancement of Small Telecommunications Companies and the Western Telecommunications Alliance, whose memberships include more than 700 small and midsize communications companies. Together these companies serve millions of consumers and 40 percent of the landmass across America.

Our Mission is dedicated to ensuring that all consumers have access to affordable telecommunications services and the latest technologies—no matter where they live. We are guided by three main principles. They are: Fairness, Affordability and Access. Fairness means that urban, suburban, and rural consumers alike deserve to stay connected to their families, friends, and the world through communications technologies. Affordability means that technology is only useful when it's affordable to consumers. Congress must ensure that all Americans can receive communications technologies at affordable prices. Lastly, access means that every American should have access to the latest, modern technologies, no matter where they live.

Universal Service has remained the cornerstone of our Nation's telecommunications policy for more than six decades, ensuring that we enjoy the benefits of a nationwide integrated communications network. The Universal Service Fund is an essential element to ensure the fairness, affordability, and access I just described. In addition, the Nation's economic and national security insists that this policy be preserved.

Today, the program emphasizes an assurance that necessary cost recovery is available to those that make the commitment to serve the Nation's most economically challenging markets. Policymakers must understand that this is the key to building the nationwide network that has guaranteed all Americans the ability to enjoy an unprecedented era of access to information.

The Coalition has come up with four main principles that we feel should guide future policy on the distribution side of Universal Service. They are:

1. Support must be used to construct, maintain and upgrade networks to benefit all consumers and must not be voucher, auction, or block grant based.
2. Support must be based upon a provider's actual cost of service.
3. Support must not be used to artificially incite competition.
4. The rural and non-rural fund distinctions must be maintained.

Support Must Be Used to Construct, Maintain and Upgrade Networks To Benefit All Consumers and Must Not Be Voucher, Auction, or Block Grant Based

In the infancy of the telephone industry large monopoly companies realized it was not economically feasible to serve much of rural America due to low population density, relatively isolated and often rugged terrain. Thus, they did not build networks serving rural America. As a nation, we quickly realized the economic burdens of serving rural and high-cost areas with vital telecommunications services. As a result, the Nation stood behind the idea of Universal Service bringing comparable services and comparable rates to all Americans no matter where they live. Due to this highly successful policy, over 1,000 small, community-based telecom providers prospered in rural America to serve the telecommunications needs of their communities. Without the national commitment to Universal Service, these networks would not have been built.

Policymakers must understand that Universal Service support is for the deployment, maintenance, and upgrading of communication networks. Communications providers do not build networks one connection at a time. Rather, networks require substantial financial investment and are built to be scaleable and expandable to meet future consumer demands for new technologies and services. Regulations that force carriers to build and maintain networks one connection at a time ignore real-world economics and will create vast inefficiencies and increased costs to all consumers. Voucher, auction, and block grant based Universal Service support will never work.

These alternatives do not take into account the capital-intensive nature of the telecommunications industry. Network deployment is only the beginning. Continual investment in network maintenance and upgrades must be done to remain competitive and these alternatives do not meet the long-term business planning needs of community based providers. Support must be predicable, stable and long-term to encourage necessary investment to meet the communications needs of our nation. The current industry funded mechanism that we have in place today can continue to meet the needs of the industry so long as a few glaring FCC regulations are modified to assure these funds are put to the best use.

Let me clarify that today, support from the Universal Service Fund has a direct correlation to a particular carriers network investment and the cost of providing that service. This cost-based system has proven to work efficiently and effectively for over six decades. We believe this framework generally can help us to achieve the same successful penetration and adoption rates in broadband services that we have seen in traditional voice service. Policymakers must keep in mind the purpose of Universal Service is to help alleviate the burdens of building *networks* in high-cost areas.

Support Must Be Based Upon a Provider's Actual Cost of Service

Requiring all Universal Service Fund recipients to receive support based on their own costs will increase program accountability as well as reduce demand for funds. Currently, a competitive carrier entering an ILEC territory receives support based on the incumbents cost. Requiring each Universal Service recipient to document its cost will greatly improve program accountability and ensure that funds are being used for their intended purpose.

The vast majority of growth in Universal Service is due to competitive eligible telecommunications carriers (ETCs). Universal Service support to competitive ETCs grew by over 115 percent in the last year. During this same period ILEC support grew by only 0.6 percent. As a percentage of the overall fund, CETCs accounted for approximately 0 percent of all Universal Service funds in 2000.[1] At the end of 2005, their distributions have skyrocketed to more than 18 percent of the total Fund. This may seem like a small percentage, but if left unchecked the Fund will become insolvent.

Support Must Not Be Used to Artificially Incite Competition

Many rural areas in our Nation can't support more than one gas station, grocery store, or other commodity service let alone multiple communications providers. While rural carriers welcome competition in areas that can support it, Universal Service should not be used to artificially incite competition in areas it would otherwise not occur. Tightening of the ETC requirements will help ensure that Universal Service monies support the intended goal of guaranteeing all Americans have access to comparable services at rates comparable to those in urban areas.

When deciding to grant ETC status the following qualifications must be met: (1) the designation must ensure ubiquitous comparable rates and services, (2) the designee must actually serve the entire ILEC market area, (3) the benefits of the designation must not outweigh the burdens on the Funds, (4) the designee must demonstrate its actual costs, (5) the designation must not cause excessive market support, (6) the designee must agree to quality-of-service and other standards, and (7) the funds must not incite unnecessary artificial competition.

The Rural and Non-Rural Fund Distinctions Must Be Maintained

Separate funds allow the FCC to specifically tailor rural high-cost support mechanisms to fit the conditions of rural local exchange carriers serving high-cost areas in rural America. Many rural carriers lack population density, serve smaller exchanges and lack the economies of scale of larger urban-centric carriers.

In the 1996 Act, Congress wisely established a definition of a "rural telephone company" and included special provisions, including ones related to Universal Service, that recognize the unique characteristics of these carriers. Requiring separate high-cost support mechanisms for rural and non-rural carriers would ensure that the FCC continues to recognize the significant differences between small rural carriers and large, urban carriers and ensure that the support rural carriers receive is sufficient to achieve the goals of Universal Service. Clearly, the amount of support needed for a huge carrier with millions of lines and serving primarily metro areas to adequately serve their rural territories would not at all be sufficient for a rural

[1] Wireless Communications and Universal Service by Bob Rowe, Senior Partner, Balhoff & Rowe, LLC @ Columbia Institute for Tele-Information. Slide 12.

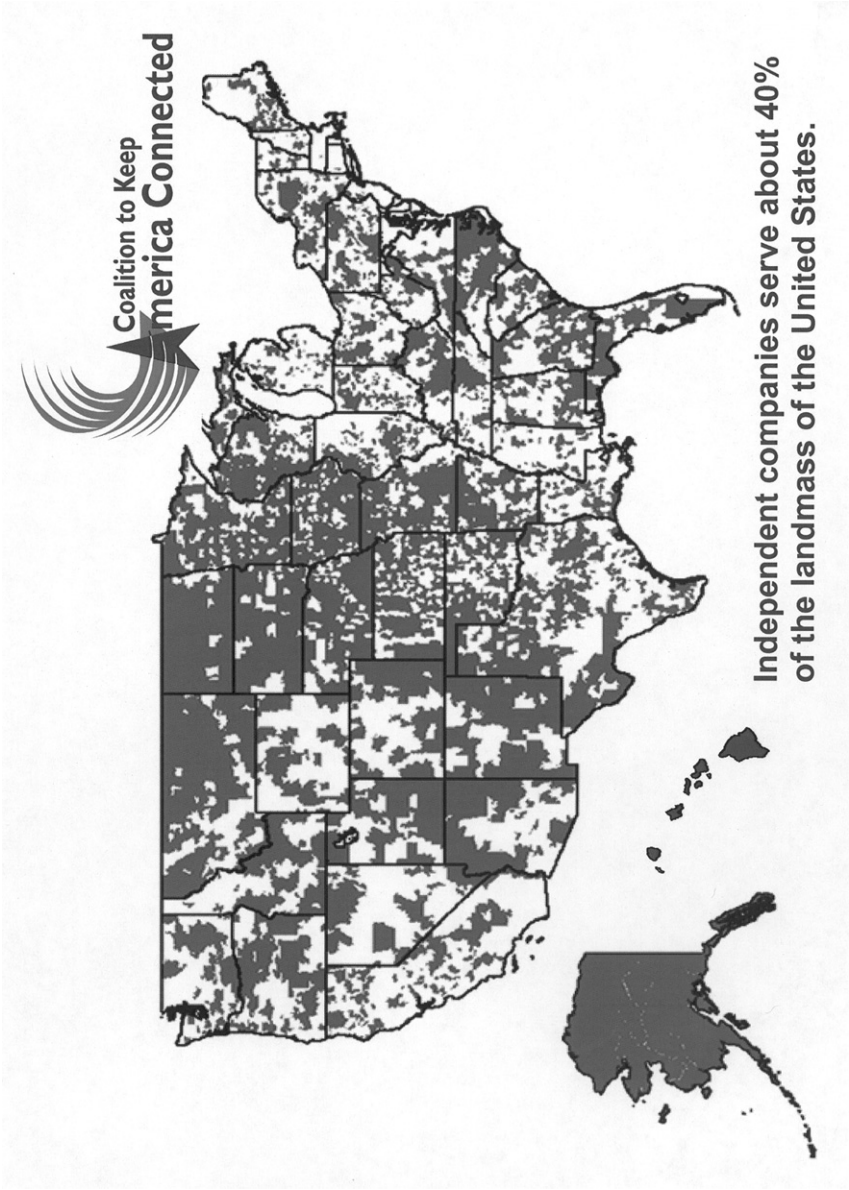
telephone company, with no low-cost metro areas, to continue to achieve Universal Service and bring advanced services to their communities.

Conclusion

I would be remiss to not point out that our thoughts on Universal Service distribution are dependant upon some key changes to the contribution side of Universal Service. The coalition believes the following steps need to be taken to bring contributions in line with the realities of today's communications marketplace.

- The base of contributors must be expanded to include all providers utilizing the underlying infrastructure, including, but not limited to, all providers of two-way communications regardless of technology used.
- Support shall be made available for the cost recovery needs of carriers deploying broadband capable infrastructure.
- The contribution methodology must be assessed on all revenues or a revenues hybrid that ensures equitable and nondiscriminatory participation.
- The regulatory authority to modify the scope of contribution obligations as technology evolves must be clarified and strengthened.

If the policy recommendations we've outlined were implemented, Universal Service would be on a sound footing and continue to play a key role in ensuring all Americans are connected to a high quality communications network.



Senator BURNS. Thank you. We appreciate that. Now we have Carson Hughes, Chief Executive Officer, Telapex, Inc., Jackson, Mississippi. Thank you for coming.

STATEMENT OF CARSON HUGHES, CEO, TELAPEX, INC.; ON BEHALF OF CELLULAR SOUTH AND THE WIRELESS INDEPENDENT GROUP

Mr. HUGHES. Thank you, Senator Burns. And I would like to thank the Committee for allowing me to appear here before this Committee. I am appearing on behalf of Cellular South, and I'm also appearing on behalf of a coalition which includes Chinook Wireless, Midwest Wireless, Rural Cellular Corporation. Our members serve approximately 1.7 million customers, and consumers, the overwhelming majority of whom use their phones in rural communities across the United States, and approximately 20 states. Let me get right to the point. A central goal of Universal Service is to provide rural consumers with comparable choices in advanced telecommunications services to those that are available in the urban areas. Now does anybody in this room, does anyone here in their heart of hearts believe that any consumer living in a rural area, where the cost is high to serve, would agree that reasonable comparability is met by a single line to the home or the office, carrying only voice. Or would it be met if the rural consumer did not have access to wireless mobile, voice, and data transmission just as is enjoyed by their competing urban fellow citizens? Who in this room has not benefited in the last 24 hours from use of a wireless communications device? I would dare say no one. But let me tell you from experience, folks in the country like Blackberries, and cell phones too, and need them for the very reason that they're needed here. And I dare say, so do each of the Members of this Committee when they're in the rural areas of their home state. Your rural constituents need to be able to contact emergency services in the event of accident or a fire, carry on their daily business by mobile communications, and they need to be able to contact their families all over the area and the Nation. And they need to be able to do this all over the area where they work, live, and play. You have my testimony and you know that I favor wireless being allowed among the USF support groups. The more important question is why should you be in favor of such service or even Universal Service at all. Cutting to the chase. What do people expect from the application of USF? In line with my understanding of the 1996 Act, rural residents expect the same quality of telecommunications enjoyed by city dwellers. In fact without comparable services at all levels, the rural Americans are not as safe and not able to compete with urban counterparts. And rural areas are unable to attract business, medical and educational facilities.

First let me focus on how Universal Service had a large, huge impact on our citizenry during the recent hurricane season. Four years ago we at Cellular South started an aggressive investment of Federal Universal Service support in developing a high quality network. As a result of our prudent investment of Universal Service support, our wireless network was operating for first responders within hours after the storm made landfall, and we returned to full capacity throughout Mississippi in less than 2 weeks after Katrina swept the region. In the immediate aftermath of the storm, we often provided the sole means of communications as wireline infrastructure lay under the rubble of the hurricane. Wireless carried safety messages, reunited families, ordered food and other needed

supplies, enabled evacuation and evaluations to be made. It was the link that saved. It was the link that tied together the people. And you made that possible by your support here before for USF for rural wireless. We're a competitive world where many nations have modern telecommunications systems nearly equal to the ones we have here in the United States, some say even better. If rural parts of our Nation are to effectively compete, those areas must have the necessary modern communications infrastructure. You started that by allowing Universal Service to apply to wireless, now even considering the good wireline infrastructure in most of our rural areas, failure to adequately support multiple carrier wireless in high-cost rural areas will make those rural areas be equivalent to a Third World country within our own national borders, when we talk about competitiveness. We think it's very important that all carriers use high-cost support for its intended purpose. Today, wireless carriers generally have more stringent reporting requirements than do any other carriers. In Mississippi, for example, we file quarterly reports within the state, describing what we're doing, when we're doing it, and then when we get through we have to file a report to tell them what we did. As I mentioned in my file testimony we support a portion of S. 2256 and commend both Senator Burns and Senator Smith, for their acknowledgement of the fact that broadband is important. We do have some differences with that bill in other aspects and I mention that in my testimony. We believe that possibly the most important thing that you can do is make it absolutely clear to the FCC that any rules that they adopt for Universal Service must be competitively neutral and not favor any class of carrier. In sum, we urge the Congress to see wireless as a part of the solution in rural America. Thank you.

[The prepared statement of Mr. Hughes follows:]

PREPARED STATEMENT OF CARSON HUGHES, CEO, TELAPEX, INC.; ON BEHALF OF CELLULAR SOUTH AND THE WIRELESS INDEPENDENT GROUP

Introduction to Cellular South and the Wireless Independent Group

Chairman Stevens, Co-Chairman Inouye and Members of the Committee, I am Carson Hughes, Chief Executive Officer of Telapex, Inc., the parent company of Cellular South. I am pleased to be here today to discuss issues involving the Universal Service Fund.

I am testifying on behalf of a coalition of independent wireless carriers called the Wireless Independent Group (WIG). Members of the coalition include Cellular South, Chinook Wireless, Midwest Wireless, and Rural Cellular Corporation.

WIG members serve approximately 1.7 million consumers, the overwhelming majority of whom use their phones in rural communities in Alabama, Arkansas, Iowa, Florida, Kansas, Maine, Massachusetts, Minnesota, Mississippi, Montana, New Hampshire, New York, North Dakota, Oregon, South Dakota, Tennessee, Vermont, Washington, and Wisconsin.

We applaud the Committee for your willingness to explore the difficult issues surrounding Universal Service Fund distributions. Like all of you, WIG members are committed to the long-term sustainability of the Fund. We have seen first hand how Universal Service support helps the lives of those living in rural and underserved communities. As a company that has participated in the Universal Service program for well over four years, I hope our experience can shed light on the immense benefits and services that are enjoyed by the rural communities we serve because of our access to these funds.

Let me provide you with a brief description of how Universal Service support has helped rural Mississippi consumers enjoy the benefits of advanced telecommunications services. In 1988, Cellular South began offering service on the Mississippi Gulf Coast. By 1992, we expanded out to 8 other Rural Service Areas (RSAs) covering most of the state. We were the first to provide analog cellular service to many

parts of rural Mississippi. By 1999, we had become the first to offer near statewide DIGITAL wireless communications to Mississippi. By the end of 2001, we had expanded our service into parts of 4 other southeastern states.

In 2002, primarily because of Universal Service support, we became the first wireless company to offer a more efficient, next generation digital service, providing consumers with unlimited voice and text messaging products at a flat rate throughout our entire service footprint. Many of these areas are designated as high-cost areas and would not have received these services without USF support.

Cellular South customers average 1,300 minutes of use per month, nearly double the industry average of 700 minutes per month. This high usage phenomenon is a direct result of our ability to deploy Universal Service support to construct and improve wireless infrastructure in the high-cost areas of the state. But, more importantly, this data point reflects the NEED and DEMAND for mobile communications in rural areas. Rural businesses and consumers deserve the same benefits that urban areas have with mobility. The Future of Broadband is mobility.

The health and safety benefits of a modern wireless communication infrastructure to rural America may be the most important benefit. There is no more powerful safety tool than a cell phone, provided there is a signal available to place an emergency call. Cellular South was recently commended by the Mississippi State legislature for our "exemplary" efforts during the aftermath of Hurricane Katrina. While wireline networks and even some other wireless providers on the Mississippi Gulf Coast took months to recover from Katrina, Cellular South's wireless network returned to full capacity throughout Mississippi less than two weeks after the hurricane's landfall.

There is no doubt in our mind that Universal Service support, prudently deployed in recent years, was key to developing a robust network that provided much needed coverage, redundancy, and ancillary back-up facilities that enabled our employees to respond effectively. We are proud of our employees and thankful to the Congress for its foresight in authorizing wireless carriers to draw Universal Service funds to improve their networks.

Congress recognized in the Telecommunications Act of 1996 (1996 Act) that the future of rural America depends largely on deployment of modern telecommunications infrastructure that allows consumers to have choices in advanced services that are similar to those available in urban areas. By permitting wireless carriers access to Universal Service funding to construct network infrastructure in areas that would not otherwise support the investment, Congress has opened the door to rural consumers having the health, safety, and economic development opportunities available through wireless service that are critical to bridge the technology gap between urban and rural America. We urge Congress that in any subsequent reform of the 1996 Act, Congress will keep the door open for rural consumers to continue to enjoy the wireless services of today and the advanced telecommunication services we can only dream of for tomorrow.

This testimony will examine the benefits rural consumers enjoy from the current USF distribution system while dispelling some of the outstanding myths concerning the USF high-cost fund. This document will also make policy recommendations about Universal Service we believe will best benefit rural communities.

Overview

1. Under the Current System, Rural Wireless Consumers Who Contribute to the Fund Are Not Seeing the Degree of Benefits That They Need and Deserve

- Wireless consumers now contribute roughly *$2.5 BILLION per year* to the Federal Universal Service system or *34 percent of the total fund*.
- Wireless carriers that are designated as Competitive Eligible Telecommunications Carriers ("CETCs") have drawn just over *$1 BILLION IN THE AGGREGATE SINCE 1996,* and in 2005 they drew roughly 10 percent of the total fund ($700 Million).
- Incumbent Local Exchange Carriers ("ILECs") draw roughly *$3 BILLION per year,* or roughly *50 percent of the total fund,* to maintain networks that are not growing in number of customers served.
- In the aggregate, we believe that consumers nationwide have spent roughly *$19 BILLION* since 1996 to finance wireline networks. In areas where wireless competitive ETCs have not been designated, rural wireless consumers see little benefit from the vast majority of the dollars they contribute.

Bottom line: Congress must make it a priority to provide Federal high-cost support to fund wireless infrastructure development for rural consumers who desperately need and deserve high-quality wireless networks. The health, safety, and

economic development benefits that flow from investing in mobile wireless communications infrastructure are precisely what Universal Service should be funding in rural America.

2. CETCs Are Demonstrating to the States That Support Is Being Used To Build Infrastructure in Areas That Would Not Otherwise See Investment

- Even with the advances that have been made in rural wireless coverage, anybody who uses a wireless phone while moving across rural America understands the huge difference in service availability and service quality compared to urban areas.
- WIG members understand how important it is for consumers to have access to mobile wireless services.
- WIG members have constructed new cell sites serving unserved and underserved communities in their ETC service areas that would not have been constructed without Federal high-cost support authorized by Congress.
- The vast majority of states now require CETCs to report how support is being used. These reports provide accountability that is not present for wireline carriers. Vermont, West Virginia, Mississippi and now Minnesota provide good examples of states that have gotten the reporting requirement right.

Bottom line: Wireless carriers are today providing written proof that the support is being used to drive infrastructure investment in rural areas that would not otherwise receive such investments. We would be pleased to deliver to the Committee on a confidential basis copies of reports of what Cellular South has done.

3. The Current System of Providing Support Necessitates Wireless Carriers To Make Efficient Investments but Allows Wireline Carriers To Make Inefficient Investments

- Wireless carriers can only get support after, (1) we build facilities, and (2) we get a customer.
- Wireless carriers are not guaranteed a return, so if we make a poor investment and only get a few customers, we bear the risk of such investment.
- Support to wireless carriers in all areas is currently capped by the number of available customers in a particular area.
- In states like Mississippi and Washington, where support has been targeted to rural areas, the system works properly: Several wireless carriers are fighting for a limited pool of support dollars in rural areas, but receive no support for serving urban areas.
- I am advised that wireline carriers operate on a "cost-plus" system that pays more as they spend more and thus can cause extreme inefficiencies. I am also advised that in many states and at the Federal level, wireline carriers only report what has been spent, not whether it is needed to provide service.

Bottom line: Wireless carriers are concerned that ALL carriers be accountable. Moreover, consumers should only fund efficient investments.

4. Rural Consumers Are Increasingly Demanding (and Certainly Deserve) High Quality Advanced Wireless Services, Including Data and Broadband, Enjoyed in the Urban Areas and They Need Access Throughout the Area Where They Live, Work, and Play

- In 2006, businesses will spend more on wireless services than on wireline according to a study released in January by In-Stat. It is estimated that the demand for wireless data will grow an average of 18 percent per year, through 2009.

Bottom line: Congress should consider policies that guarantee rural communities an opportunity to keep pace with urban areas in the technology race.

Testimony

Recently, the Consumer Electronics Association released a study showing that 17 percent of consumers who purchased their wireless phone within the past 90 days are relying solely on their wireless phones for voice service.[1] This is a significant jump from earlier reports that wireless substitution was roughly 9 percent. We believe that wireless is the future for voice and data communications throughout the

[1] "The Wireless Purchasing Study: Measuring Satisfaction and Loyalty", Steve Koenig, Senior Manager, CEA.

Nation and that sound Universal Service policy that has "jump started" infrastructure development of advanced wireless networks in rural areas must be continued.

There is no sound public interest reason to deny rural consumers the technology they need to compete with our Nation's urban areas. In reality, I can't think of anything that will widen the gap between rural and urban areas, and accelerate the brain drain out of rural areas more than attempting to control growth of the Fund by limiting wireless carrier access to Universal Service funds. Urban areas of our Nation benefit from the availability of advanced wireless and wireline telecommunication systems in the rural areas since it allows businesses to extend their reach. Universal Service, in part, has helped wireline carriers deploy a ubiquitous outstanding network in rural America over many decades. The public now requires a similarly ubiquitous outstanding wireless network.

It is a simple fact that wireless carriers cannot effectively compete in high-cost areas if only the wireline carrier receives support. Wireless carriers need Universal Service support to construct networks in areas that would not otherwise receive the level of investment needed to deliver high-quality advanced services. Every time we construct a new cell site in an underserved area, consumers in roughly 144 square miles of land area have access to 911, E–911, and all of the service offerings that mobile wireless can provide.

Universal Service must grow with the reality that consumers are best served by competition. The best thing Congress can do is insist that the FCC adopt rules for distributing Federal Universal Service support that are competitively and technologically neutral. In short, Universal Service rules must not disadvantage any class of carrier or technology. In addition, the FCC must develop mechanisms for verifying that carriers are using support for building and maintaining networks.

Unfortunately, we cannot support a portion of Senate Bill 2256 proffered by Senator Burns, but we do applaud the inclusion of broadband as a supported service. Today, we are seeing the proliferation of uses for mobile broadband services and rural consumers need these tools to compete with their counterparts in urban areas.

We are concerned however about anti-competitive proposals that would stall or prevent expansion of advanced wireless services in rural areas by requiring carriers to build out an entire high-cost area before they receive ETC designation. Such a requirement turns the whole theory of universal support on its ear, ignoring the economic reality that without support, expansion by wireless into many rural areas would be impossible. Had this requirement been imposed upon wireline companies in years gone by, we would no doubt be looking at large areas of the country that would not be enjoying the benefits of the modern telecommunication systems that now exist.

Wireline carriers spent decades building out their networks, all the while receiving some form of Universal Service support to assist in their construction efforts. Wireless is no different in this regard—we cannot build an entire network before receiving any support. The current system which only provides support when we get a customer naturally requires us to build first, but properly provides support incrementally, as we grow. Moreover, disaggregating, or targeting support to high-cost areas prevents competitors from receiving support when constructing network facilities in urban areas.

We are also concerned about the proposal in S. 2256 that would eliminate the "identical support" rule. After much careful consideration, the FCC rejected this proposal years ago, and for good reason. Paying each ETC on its own costs would require a larger USF and would not control growth of the Fund as some would suggest. Wireless ETCs under the present system receive the same "per-line" support as the landline carriers, but nowhere near the same amount of total support because wireless ETCs are paid only after they construct facilities and gain a customer.

For example, under the current system, supporting three ETCs that serve the same area does not triple the burden on the Fund because, in our experience, customers do not carry three wireless phones. In effect, support is capped in an area by the number of people living there and all wireless competitors must fight for a fixed amount of customers and support. Each carrier is paid the same "per line" support on a "per line" basis, rather than each wireless ETC being paid on its own costs to construct an entire network. We support this because it requires efficiency on the part of the wireless company and it does not place regulators in the position of selecting which company should be selected to build a network and which company should be left out.

We are also concerned about a provision that would allow rate regulation by states. This provision is anti-competitive and bad for rural communities because it would eliminate the ability of a wireless provider to lower rates if it so chose. We note that many states are moving away for most rate regulations of wireline carriers today.

We are of the opinion that the better course is to permit consumers to choose the service they value most and focus on making each carrier accountable for the funds they get—to drive the infrastructure needed to provide benefits and eventually minimize the amount of support needed to serve rural consumers.

In order to clear the record, we review below several myths that have been proffered to date, and our response to each.

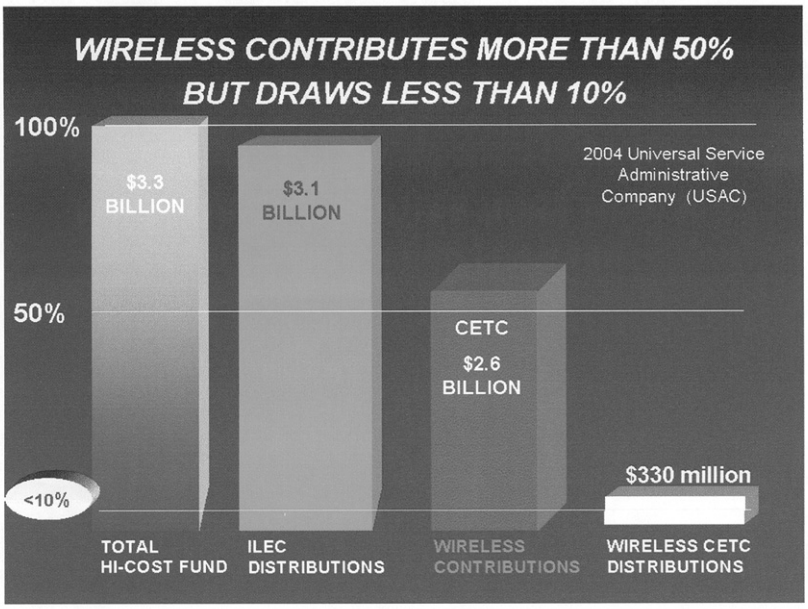
> *MYTH:* Wireless carriers that are CETCs are responsible for "ballooning" or "exploding" the high-cost Fund.
>
> *FACT:* A close examination of the facts about the high-cost Fund shows nothing could be further from the truth.

We have heard that Universal Service and in particular, the "high-cost Fund" is going bankrupt because of the increase in the number of CETCs. More alarming perhaps is the allegation that soon there will be no money left in the Fund to sustain telephone services in rural areas, again as a result of CETC Designations.

The most recent figures available to me show the high-cost Fund provided $3.4 billion in 2004. Of the roughly $3.4 billion in Federal high-cost support distributed in 2004, wireless CETCs received approximately $333 million, or around 10 percent of the total.[2] Final figures for support provided in 2005 are not yet available, however I am advised that an good estimate of the amount of support to CETCs to be approximately $700 million. Without a doubt, support to new entrants has risen significantly on a percentage basis, notably because it began at zero.

Since 1999, support to ILECs, which operate mature networks that typically are not growing, has gone from approximately $1.7 billion per year to approximately $3.15 billion per year, a total increase of roughly $1.4 billion per year.[3] Of that increase, roughly $620 million per year represents a real dollar increase in funding. The rest represents support that the FCC has transferred from carrier rates into the Universal Service program.

The following two tables illustrate ILEC and CETC draws:



[2] Source: Universal Service Administrative Company Annual Report, 2004. Available at *http://www.universalservice.org/__3res/documents/about/pdf/2004-annual-report.pdf.*

[3] *See id.*

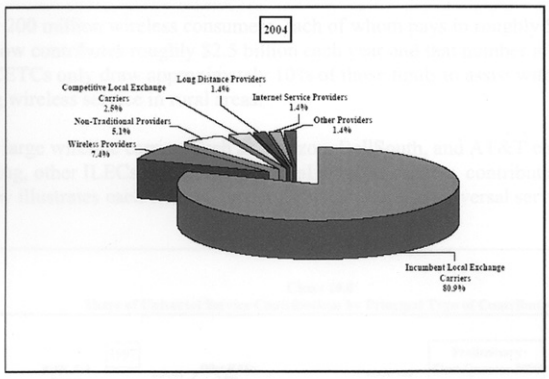
Table 19.5—High-Cost Support Received by ILECs and CETCs
(in millions of dollars)

	ILECs	CETCs	Total	Percent CETCs
1996	$1,188	$0	$1,188	0.0
1997	1,263	0	1,263	0.0
1998	1,690	0	1,690	0.0
1999	1,717	1	1,718	0.0
2000	2,233	1	2,235	0.1
2001	2,575	17	2,592	0.7
2002	2,889	46	2,935	1.6
2003	3,142	131	3,273	4.0
2004	3,155	333	3,488	9.5

Notes: ILECs is an abbreviation for incumbent local exchange carriers. CETCs is an abbreviation for competitive eligible telecommunications carriers. CETCs include both wireless and wireline carriers.
Source: National Exchange Carrier Association (1996–1997). Universal Service Administrative Company (1998–2004).

While CETCs have collected a total of approximately $529 million in high-cost support through 2004, ILECs have received roughly $19 billion in Federal Universal Service support during the same time period. In many states, rural ILECs receive substantial support from state Universal Service programs as well.

Chart 19.2
Universal Service Support Received by Service Provider Type



Source: *Trends in Telephone Service.* Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission. 2005. Available at www.fcc.gov/wcb/iatd/trends.html

Funding to new competitors has increased—it is a predictable outcome of sensible Universal Service policy. Congress must continue to permit competitive entry into rural areas and get beyond short-run "growing pains" in order to achieve the maximum benefits to rural consumers. By continuing to provide appropriate incentives for new telecommunications providers to invest in high-cost areas, rural customers will receive increased quality and quantity of services at lower prices.

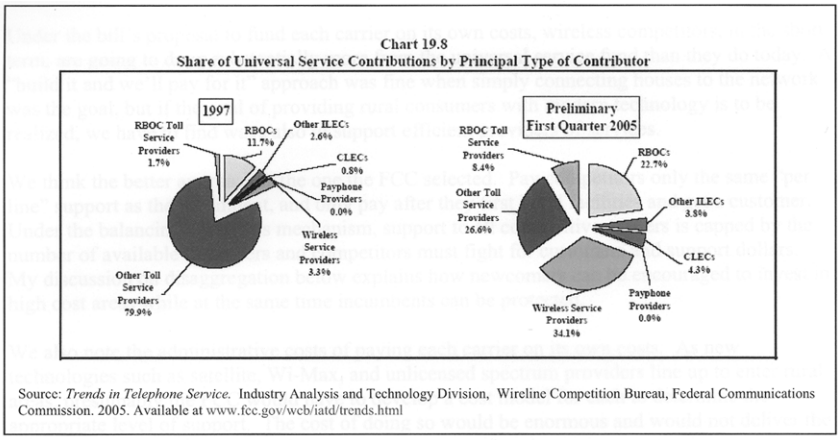
MYTH: Wireless carriers don't pay their fair share into the high cost Fund.

FACT: Wireless consumers, who draw just over 10 percent of the total fund (approximately $330 million) now contribute over 34 percent of the total Fund, or roughly $2.6 BILLION per year. *Rural wireline* carriers, who draw 50 percent of the total fund (approx. $3 Billion) contribute only 3.8 percent of the total Fund.

Rural wireless consumers are entitled to receive service quality and service choices that are reasonably comparable to those that are available in urban areas—*as promised by Section 254 of the 1996 Act*.

With over 200 million wireless consumers, each of whom pays in roughly $1.00 per month, wireless now contributes roughly $2.5 billion each year and that number is rising steadily. Yet, wireless CETCs only draw approximately 10 percent of those funds to assist with deploying and expanding wireless service in rural areas.

While the large wireline carriers such as Verizon, BellSouth, and AT&T contribute 22.7 percent of the total funding, other ILECs, which include rural wireline carriers, contribute only 3.8 percent. The table below illustrates each class of carriers' contributions to Universal Service:



Source: *Trends in Telephone Service.* Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission. 2005. Available at www.fcc.gov/wcb/iatd/trends.html

We can think of no better use for Federal high-cost support than the investment in new infrastructure by carriers willing to demonstrate that support is being properly invested, to provide rural consumers with high-quality service and service choices that are comparable to those in urban areas. *Any legislation must accelerate wireless infrastructure development in rural areas—not impede it*.

> *MYTH:* Supporting wireline and wireless carriers on their own separate costs will curb Fund growth.
>
> *FACT:* Supporting each class of carrier on its own costs will retard or prevent competitive entry, will be extraordinarily expensive to implement, will require regulators to pick winners, and will ultimately cost the Fund more than the current system.

While supporting carriers on their own costs is a catchy mantra, the FCC rejected it after years of rulemaking proceedings. The FCC's files contain testimony of reputable economists who have also rejected this approach.

Under the bill's proposal to fund each carrier on its own costs, wireless competitors, in the short term, are going to draw substantially more from the Universal Service Fund than they do today. A "build it and we'll pay for it" approach was fine when simply connecting houses to the network was the goal, but if the goal of providing rural consumers with modern technology is to be realized, we have to find ways also to support efficient providers of services.

We think the better approach is the one the FCC selected. Pay competitors only the same "per line" support as the incumbent, and only pay after they first build facilities and get a customer. Under the balancing act of this mechanism, support to all competitive carriers is capped by the number of available customers and competitors must fight for customers and support dollars. My discussion on disaggregation below explains how newcomers can be encouraged to invest in high-cost areas while at the same time incumbents can be protected.

We also note the administrative costs of paying each carrier on its own costs. As new technologies such as satellite, WiMax, and unlicensed spectrum providers line up to enter rural areas, presumably the FCC would have to develop a cost model for each to determine the appropriate level of support. The cost of doing so would be enormous and would not deliver the benefits that the current system does.

> *MYTH:* You can control growth in the Fund by limiting the number of competitors in a service area.
>
> *FACT:* Limiting the number of carriers in a service area robs rural communities of the benefits of competition. *Multiple carriers in a service area competing for customers results in cheaper, higher quality voice and broadband services*.

Policies that limit the number of carriers who may receive USF support in a given area are contrary to the goal of allowing Americans to receive wireless voice and

broadband services in rural areas. The Universal Service program already has protections in place to cap growth and expenditures in a service area:

- The current distribution system caps the amount of Federal support available to wireless carriers serving an area, while NOT capping support to rural incumbent landline carriers.
- The amount of funds available in any high-cost area is capped by the number of customers. In other words, wireless competitors can only receive support if they are successful in getting a customer. When more than one wireless competitor is designated in an area, they must fight for consumer revenue and support.
- Moreover, since the FCC's rules prohibit support to be paid when a customer is served via resale, wireless CETCs must first construct facilities in high-cost areas before getting any support.

The current system, when combined with disaggregation of support, discussed below, are key elements in achieving the dual goals of advancing Universal Service and promoting competition in rural areas.

MYTH: Wireless providers "cream skim" areas where it is financially beneficial to operate.

FACT: Current high-cost Fund regulations prevent cream skimming.

We have heard this concern expressed in many forms. The most common is the "pole in the tent" analogy, that is, if wireless carriers are allowed to skim off the most lucrative customers, who represent the tent pole, then incumbent wireline carriers could go out of business having to serve the remaining low-margin customers, and the tent will collapse.

My personal experience teaches that a wireless carrier, indeed any newcomer, is going to chase the cream—the high-end customers, the low-cost areas, and the most lucrative markets *irrespective whether they are designated as ETCs.* In fact, without ETC designation, a newcomer is free, in fact encouraged by the economics, to do just that without any obligation to extend service to low-margin or high-cost areas. The only reasonable conclusion that can be drawn is that cream skimming can only be minimized by placing newcomers on a level playing field with incumbents and adopting rules to stop newcomers from getting Universal Service support in those areas that are low-cost for incumbents, such as population centers in rural areas.

Fortunately, the FCC set up rules five years ago to protect ILECs from financed competition in their most lucrative areas. Wireline carriers participated in and approved of such rules, which permit them to redirect support outward to their highest-cost areas and remove it from their "cream" areas. That process, known as disaggregation, is working in many areas.

We Recommend Congress Consider Washington State as an Example of How To Reform USF

In Washington, all rural ILECs have targeted or "disaggregated" Universal Service funds to the highest-cost areas within the State. As a result, those designated in low-cost areas receive no support and those designated in high-cost areas receive a predictable amount of support. Targeting funds in this manner has kept growth in the Fund down while delivering services where they are needed most.

In Washington, wireless competitors draw only 32 percent of the total support in the State, compared with 68 percent drawn by wireline carriers. Wireless carriers are drawing less despite the fact their networks require significant capital expenditures to serve throughout the State. They are only rewarded when they get a customer in high-cost areas, which means they have to build facilities in the outlying area in order to get their first dollar of support.

Disaggregation also solves the problem of defining service area boundaries for newcomers. When an area is disaggregated, regulators have more flexibility, because if a newcomer serves predominantly low-cost areas, it will receive a lesser amount of support. If it serves higher-cost areas, it will receive higher levels commensurate with the type of area being served.

Finally, it is important to note that under the current system, when more than one wireless competitor is designated in an area, they must fight for consumer revenue and support and sparsely populated areas will not yield enough "per line" support to allow multiple carriers to construct facilities.

We urge Congress to recognize that the FCC has already developed very useful tools to permit wireline carriers to more accurately target support to high-cost areas so as to properly reward competitors willing to invest in areas that need it most, while protecting wireline carriers from subsidized competition in low-cost areas.

MYTH: Wireless carriers are not using funds to improve service to rural America and more oversight is required.

FACT: Wireless carriers are not only using support to improve their networks but in many, if not most states, they are much more accountable than are wireline carriers.

My experience at Cellular South is typical of other WIG members. When we first obtained CETC status, we knew that the spotlight would shine on us, and that we would be expected to demonstrate that support is going to improve our networks in ways that would not otherwise have happened without support. We expected State commissions to examine our use of support, and we have been more than willing to provide reports as to our activities each year prior to the State recertification to the FCC each October 1.

Each state handles the process differently. Most require one annual report showing funds received over the past year, how they were used, along with a projection of support for the coming year and how such funds will be used. A few, like Mississippi, require quarterly reports, and Cellular South provides those regularly. Although the information in such reports as to how future support will be used is kept confidential, we are pleased to provide examples of what has been done with support.

Some examples of small communities in Mississippi that now have service include Pittsboro, Bassfield, Prentiss, Tylertown, Columbia, Byhalia, Houston, Bruce, Banner, Perkinsville, Gore Springs, Pyland, Sabougla, Slate Springs, Vardaman, and Woodland. Many of these communities are very small and our service to them includes significant farm lands that permit the use of our devices in the truck and on the tractor. To anyone who understands the risks agricultural workers take on every day this new coverage is no small matter.

Another WIG member, Rural Cellular Corporation, has heard from the Maine Sheriffs Association that they depend on cellular phones to do their jobs properly, and to protect both citizens and themselves. To cite just one example, when a sheriff gets a domestic disturbance call, he instructs the dispatcher to provide the phone number at the residence. He then calls while on his way to get a sense of the situation, for example whether there is alcohol or firearms involved. This gives him a better understanding as to what to expect when he knocks on that door.

Our experience is just a small portion of what other WIG members can report. To use the example of Rural Cellular Corporation in Maine, they have built new cell sites that would not have been constructed in towns such as China, Rumford, Bethel, Fort Kent, and Strong. If anyone gives the impression that wireless carriers are not using support in the manner it was intended, they have not looked at our company or the other WIG members that are CETCs.

In sum, wireless carriers are using support to drive infrastructure development in rural areas. Given that wireless consumers contribute so much to the Fund, we share concerns that support be used properly, and urge Congress to look carefully at all carriers. As we understand it, over 400 ILECs report no costs and the accountability for fund use as "average schedule" companies is far more limited than that which exists for wireless carriers. We believe that none of the ILECs provide specific explanations as to how USF support is used for the benefit of consumers, as we in the wireless community are doing today. We urge the Congress to shine the same degree of light on all carriers who are stewards of the Fund to ensure that consumers receive the benefits that they deserve.

Benefits of USF to Rural America

High-Cost Support for Wireless Consumers Provides Vital Health and Safety Benefits to Rural Areas

In closing, I again note that in urban areas, it is taken for granted that one can complete a wireless call in an emergency. In a very short time, urban consumers' expectations for wireless have risen enormously, to the point where the failure to complete an important health or safety call is newsworthy.

In many rural areas, expectations are often very different. Consumers living in these areas understand that wireless phones work in larger towns and on major roads, but might not work as well in all rural terrain. Although wireless networks are improving, many rural consumers still see mobile phones more as ancillary communications tools, rather than devices that can be counted on to provide primary telephone service. An example of the changing expectations for rural coverage is the introduction of a well meaning bill recently introduced in our State legislature that would require wireless carriers to provide service statewide (Federal license boundaries notwithstanding) and proposing hefty fines for failure to comply.

The best thing the FCC and Congress can do to promote the health and safety benefits of mobile wireless communications in rural America is to ensure that critical wireless infrastructure continues to be built out in rural areas. *The high-cost Fund has provided the incentive to invest in better technologies and services that ultimately result in improved emergency communications*.

We can think of few achievable goals more important than driving investment into rural areas. Encouraging wireless carriers to become CETCs and ensuring that funds are spent on network construction is critical to delivering this vital benefit to rural America.

High-Cost Support in Rural Areas Drives Economic Development

As a rule, our Nation's rural areas have long trailed cities in terms of economic development. *Use of high-cost support to improve infrastructure has a significant economic impact on small communities* and is a key to closing that gap. Today, many companies consider rural areas as more attractive places to locate and one of the major factors involved in selecting a community is the quality of its telecommunications infrastructure.

Wireless service is a very important factor in the equation. More and more companies and people today rely on wireless phones to improve efficiencies and manage their businesses. The examples we've cited above are just the tip of a much larger story. As economies around the world become more interdependent, our rural areas have to compete not only with American business, but with foreign business as well. Universal Service funds, used properly to improve our infrastructure, will enable America to compete better on the world stage, with countries like Japan and South Korea, who today are far ahead of us in both broadband and mobile wireless service development. We can think of no better use for Federal high-cost support than to provide the tools necessary for our rural areas to compete.

WIG Policy Recommendations

Rural communities benefit the most from policies that encourage competition and improvements to existing telecommunications services. *Any policy that attempts to stall the entry of new providers in rural areas retards the development of needed wireless infrastructure and ultimately will widen the gap between rural and urban areas.* Consumers living in and traveling through rural areas deserve the same kinds of health, safety, and economic development benefits that flow from having access to advanced wireless and broadband telecommunications services such as are available in urban areas.

Therefore we urge Congress to include the following principles in any USF reform measure:

- Universal Service should not guarantee a market outcome for any carrier or class of carrier.
- All Federal and State Universal Service rules must be competitively neutral—that is—Universal Service rules must not disadvantage any class of carrier or technology.
- All carriers who receive Universal Service support must demonstrate that support is actually being invested as required by the Act and the FCC's rules.
- Support should be distributed equitably among all technologies and carriers without continuing a historical preference for ILECs.
- Support should be targeted to the neediest of areas. If ILECs believe "cream skimming" is a problem, ILECs are currently permitted to "disaggregate" or target Universal Service support to the highest-cost areas so that competitors do not receive funds in areas that are low-cost to ILECs. Thus, there is no need to require new competitors to serve throughout an ILEC study area.

Most important, wireless consumers pay into the Fund and are thus entitled to the benefits that Congress intended to deliver when it passed the 1996 Act—to ensure that rural areas have choices in services that are comparable to urban areas. Therefore, Congress and the FCC should continue to allow rural wireless carriers who have CETC status to receive high-cost support from the Universal Service Fund in a competitively neutral fashion. Doing so will open rural markets to competition, rein in Universal Service Fund growth, and drive voice and broadband services to rural Americans.

Senator BURNS. Thank you very much, Mr. Hughes. Now we have the Honorable Tony Clark, who comes from my neighbor State of North Dakota. He's the Chairman of the Public Service

Commission. And Commissioner Clark, welcome today, we're looking forward to your testimony.

STATEMENT OF THE HON. TONY CLARK, PRESIDENT, NORTH DAKOTA PUBLIC SERVICE COMMISSION; CHAIRMAN, NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS (NARUC) TELECOMMUNICATIONS COMMITTEE

Mr. CLARK. Thank you, Senator Burns, and members of the Committee. I am Tony Clark, President of the North Dakota Public Service Commission and Chairman of the National Association of Regulatory Utility Commissioners (NARUC) Telecommunications Committee, which represents commissions in all 50 States, the District of Columbia, U.S. territories, with jurisdiction over telecommunications, electricity, gas, water, and other utilities.

This series of hearings is especially important to me because of the impact that Universal Service programs have on rural states like mine. North Dakotans are eager to embrace the power and promise of innovative services, but all of those technologies require underlying infrastructure: wireline, or wireless—and those require real investment to build and maintain, especially in rural markets. We read daily about how intertwined the global economies of New York, and Los Angeles are to those of Tokyo and London. In North Dakota, we like the idea of Fargo, Valley City, and even tiny Mandaree, population 558, on the Fort Berthold Indian Reservation being part of that global information economy too, a concept that would be unthinkable without a first-class communications infrastructure.

Beyond their economic value, telecommunications networks are also critical infrastructure, a point driven home during last year's natural disasters on the Gulf Coast.

We're here today because Universal Service is at a crossroads. On the contribution side, there is a growing chasm between the services and carriers that sustain the Fund and those that interconnect to the network that are supported by it. On the distribution side, the Universal Service Fund has grown tremendously in the last 5 years. These two trends are on a crash course, making the status quo unsustainable.

On both sides, the Universal Service Fund faces a number of existential questions. Questions like: Should it explicitly fund broadband infrastructure? How many carriers should be able to serve high-cost areas? On what cost basis should carriers be reimbursed? How many access lines per customer should be funded? Is it intended for networks or is it intended for individuals?

Each choice carries both costs and opportunities, and to be perfectly frank with you, the cost and benefits of different options are going to vary from State to State, as will the advice that each of you will get from each of your individual State commissions, but at the end of the day, we must all find common ground.

On a practical level, NARUC believes that whatever the Federal Universal Service Fund is intended to accomplish, it should be done as efficiently as possible. That is why we support a permanent exemption of Federal Universal Service programs from the Antideficiency Act. We commend you for securing this year's ex-

emption and we look forward to working with you to make that exemption permanent beyond 2006.

Under Section 214(e) of the Act, State commissions are delegated to help administer the Federal Universal Service Fund by designating eligible telecommunications carriers in each state that receives support.

In March 2005, acting on a recommendation of the Federal-State Joint Board on Universal Service, the FCC issued permissive guidelines for the states to use in their ETC designations, partially in response to the growing role and prominence of competitive ETCs. At this writing, at least 24 State commissions, including mine, have either implemented the guidelines or initiated rulemakings to incorporate some or part of these suggested guidelines. NARUC's members are available to talk about our individual experiences if Congress intends to reexamine this process.

NARUC supports efforts to more equitably distribute the funding base of the Federal Universal Service Fund in a technology-neutral manner, although we believe such efforts must be accommodated by similar efforts to ensure the long-term sustainability of State programs. Today, Universal Service is a jointly shared responsibility between the States and the Federal Government, with 26 State programs distributing about $1.3 billion dollars. This joint approach benefits both "net donor" and "net recipient" States.

We are concerned, however, that efforts to expand the Federal contribution base without a complementary clarification of State authority could inadvertently create tremendous funding gaps for State funds. Specifically, there is a danger that if the Federal Fund were expanded to draw against intrastate revenues, as several bills have proposed, Section 254(f) of the Act could be interpreted to prevent State programs from collecting any assessments, an issue already addressed by the Fifth Circuit.

We believe the ultimate solution is to stabilize the contribution base of State Universal Service programs at the same time the base is stabilized for the Federal program, by making State USF assessment authority co-extensive with that of the Federal program, regardless of which contribution approach is ultimately chosen.

Ultimately, NARUC's members share each of your concerns about delivering the best, most efficient, advanced, and affordable communications services to your constituents because they are also ours. As you consider changes to Universal Service, both State and Federal, we offer ourselves as partners, especially when it comes to impact of national policies on each individual state.

Thank you, Mr. Chairman, Committee Members, I look forward to any questions you might have.

[The prepared statement of Mr. Clark follows:]

PREPARED STATEMENT OF HON. TONY CLARK, PRESIDENT, NORTH DAKOTA PUBLIC SERVICE COMMISSION; CHAIRMAN, NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS (NARUC) TELECOMMUNICATIONS COMMITTEE

Mr. Chairman, Co-Chairman Inouye and Members of the Committee, thank you for the opportunity to testify today. I am Tony Clark, President of the North Dakota Public Service Commission and Chairman of the Telecommunications Committee of the National Association of Regulatory Utility Commissioners (NARUC). NARUC represents State commissions in all 50 States, the District of Columbia and U.S. ter-

ritories, with jurisdiction over telecommunications, electricity, gas, water, and other utilities.

This series of hearings is especially important to me because of the impact that Universal Service programs have on rural States like mine. North Dakotans are eager to embrace the power and promise of VoIP, IPTV, wireless broadband and other innovative services, but *all* of those technologies require underlying infrastructure: wires, switches, towers and routers—and those require real investment to build and maintain, especially in rural markets. We read daily about how intertwined the global information economies of Silicon Valley, New York, Los Angeles, and Seattle are to those of Singapore, Tokyo, London and Bonn. In North Dakota, we like the idea of Fargo, Valley City and even tiny Mandaree (population 558, on the Fort Berthold Indian Reservation) being part of that global information economy too—a concept that would be unthinkable without a first-class communications infrastructure. So the Telecommunications Act's promise of reasonably comparable rates and services for high-cost areas means a lot to States like mine.

Beyond their economic value, telecommunications networks are also critical infrastructure. One of the most valuable lessons we learned when Hurricane Katrina struck the Gulf Coast last year was how the importance of reliable communications networks is magnified tenfold when disaster strikes—natural or manmade—and first responders and relief organizations must coordinate thousands of workers and volunteers in real-time efforts where each minute can be measured in lives lost or saved.

USF at an Existential Crossroads

We're here today because Universal Service is at a crossroads. On the contribution side, there is a growing chasm between the services and carriers that sustain the Fund, and those that interconnect to the network supported by it. The end result is that the contribution requirement is falling ever more heavily, and unfairly, on a shrinking number of carriers. This means that the charge the end-user has to pay on interstate and international toll calls has risen to close to 11 percent recently, which is a result of the growing demands on a shrinking revenue base of toll calls. On the distribution side, the Universal Service Fund has grown tremendously in the past few years. These two trends are on a crash course, making the status quo unsustainable.

On both sides, the Universal Service Fund faces a number of existential questions:

- Should it explicitly fund broadband infrastructure and services?
- What is the optimal size of the Fund and does it need to be capped?
- Should it fund competition in high-cost markets?
- How many networks should it be used to fund in high-cost markets?
- On what cost basis should carriers be reimbursed?
- How many access lines per customer should be funded?
- Is it intended for networks or for individuals?
- Should contributions be pegged to network usage, use of numbers, connections or some other methodology?
- Should Universal Service continue to be a shared Federal-State responsibility, or should the Federal Government take on the entire burden?

Each choice carries both costs and opportunities, and a decision on any one of them will have a ripple effect on all the others. In addition, Universal Service programs are inextricably intertwined with intercarrier compensation and larger impacts on the entire communications market. To be perfectly frank, the costs and benefits of different options will vary from State to State, as will the advice of your individual State commissions, but at the end of the day, we must all find common ground.

On a practical level, NARUC believes that whatever the Federal Universal Service Fund is intended to accomplish, it should be done as efficiently as possible. That is why we support a permanent exemption of Federal Universal Service programs from the Antideficiency Act. We commend you for securing this year's exemption and we look forward to working with you to make that exemption permanent beyond 2006.

Eligible Telecommunications Carrier Designations

Under Section 214(e) of the Act, State commissions are delegated to help administer the Federal Universal Service Fund by designating eligible telecommunications carriers (ETCs) in each State that receives support. The Act requires a finding that the carrier will offer the services supported by Universal Service throughout the

service area, either using its own facilities or a combination of its own facilities and resale of another carrier's facilities, and that it will advertise the availability of those services using media of general distribution. The Act also requires an ETC designation to be consistent with the public interest, convenience and necessity, but did not set forth specific criteria to be applied under the public interest tests in Sections 214 and 254 of the Act. For service areas already served by a rural telephone company, the Act specifically requires a public interest determination to be made before a State commission designates a competitive ETC for that service area.

In some States, standards were interpreted to allow a degree of latitude in ETC designations. Our experience in North Dakota allowed for very little. Prior to my tenure, the Public Service Commission (PSC) denied ETC status to a competitive ETC applicant, citing the public interest standard and a number of policy concerns, including impact on the Federal Fund. The carrier sued the PSC, and the court ruled that questions of Federal Fund sufficiency were outside the scope of any State PSC inquiry. Lacking the ability to take into consideration this factor, the public interest standard became a relatively easy burden for a competitive ETC to meet.

In March 2005, acting on a recommendation of the Federal-State Joint Board on Universal Service, the FCC issued permissive guidelines for the States to use in their ETC designations, partially in response to the growing role and prominence of competitive ETCs. A major policy goal of those guidelines was to ensure that *all* ETCs used any Universal Service disbursements to invest in infrastructure and defray consumer costs in the appropriate service area. Specifically, the guidelines call for a requirement for each carrier seeking ETC status to:

a. Provide a five-year plan demonstrating how high-cost Universal Service support will be used to improve its coverage, service quality, or capacity in every wire center for which it seeks designation and expects to receive Universal Service support;

b. Demonstrate its ability to remain functional in emergency situations;

c. Demonstrate that it will satisfy consumer protection and service quality standards;

d. Offer local usage plans comparable to those offered by the incumbent local exchange carrier (ILEC) in areas for which it seeks designation; and

e. Acknowledge that it may be required to provide equal access if all other ETCs in the designated area relinquish their designations pursuant to Section 214(e)(4) of the Act.

The Order also encouraged States to apply a public interest standard, including consideration of a cost-benefit analysis and potential "cream skimming" effects in instances where an ETC applicant seeks designation below the study area level of a rural incumbent LEC. And to make sure the guidelines were applied uniformly, the FCC encouraged States to require annual certifications from all ETCs, even those previously designated, including progress reports on coverage and service quality improvements.

At this writing, at least 24 State commissions have either implemented the guidelines or initiated rulemakings to incorporate some or part of these suggested guidelines. NARUC's members are available to talk about our individual experiences if Congress intends to reexamine this process.

USF Contributions and State Programs

NARUC supports efforts to more equitably distribute the funding base of the Federal Universal Service Fund (USF) in a technology-neutral manner, although we believe such efforts must be accommodated by similar efforts to ensure the long-term sustainability of State programs. Today, Universal Service is a jointly shared responsibility between the States and the Federal Government, with 26 State programs distributing about $1.3 billion, or nearly 20 percent of the overall national commitment to Universal Service. This joint approach benefits both "net donor" and "net recipient" States because it lessens the burden on an already sizable Federal program and permits another option when Federal disbursement formulas that "work" in the aggregate do not adequately serve a particular State or community.

We are concerned, however, that efforts to expand the Federal contribution base without a complementary clarification of co-extensive State authority could create tremendous funding gaps. Specifically, there is a danger that if the Federal Fund were expanded to draw against *intrastate* revenues, as several bills have proposed, Section 254(f) of the Act could be interpreted to prevent State programs from collecting any assessments, an issue already addressed by the addressed by the U.S. Circuit Court for the Fifth Circuit in *AT&T* v. *Public Utility Commission of Texas,* 373 F.3d 641 (5th Cir., 2004).

Endangering State Universal Service funds would also raise issues of fairness in the Federal distribution formula. The 1996 Act explicitly contemplated the creation of State Universal Service funds and State funds have been generally created to meet needs not met by the Federal distribution formula. For example, many States used their funds to address the impact on carriers of lowering *intrastate* access charges, while others used State funds to address implicit subsidies that still exist between urban and rural areas within their States, or to increase broadband deployment.

We believe the ultimate solution is to stabilize the contribution base of State Universal Service programs at the same time the base is stabilized for the Federal program, by making State USF assessment authority co-extensive with that of the Federal program, using numbers, connections, total revenues, or whichever approach is ultimately chosen.

Conclusion

Beyond Universal Service programs, States have also taken numerous measures to encourage expeditious availability of broadband and telephonic infrastructure, including numerous bills that deregulated incumbent phone companies in return for promises to offer broadband, cooperative agreements to purchase broadband services in return for commitments to build out to surrounding business and residential areas, and in some cases, public builds of broadband infrastructure.

Ultimately, NARUC's members share each of your concerns about delivering the best, most efficient, advanced, and affordable communications services to each of your communities. As you consider changes to Universal Service, both State and Federal, we offer ourselves as partners, especially when it comes to the impact of national policies on each individual State. I appreciate the Chairman's recent appearance before NARUC and this Committee's desire to tap the expertise of our State commissions as Congress moves to resolve Universal Service and other important communications issues.

Senator BURNS. Thank you very much Mr. Commissioner, we appreciate that very much. Mr. Scott, we've just been joined by the Chairman of the full Committee, and boy that has its priorities.

Senator Stevens.

STATEMENT OF HON. TED STEVENS, U.S. SENATOR FROM ALASKA

The CHAIRMAN. Let's proceed. I appreciate you starting the hearing.

Senator BURNS. Well, all right. Mr. Scott, you may proceed. Mr. Scott is Policy Director of the Free Press here in Washington.

STATEMENT OF BEN SCOTT, POLICY DIRECTOR, FREE PRESS; ON BEHALF OF FREE PRESS, CONSUMERS UNION, AND CONSUMER FEDERATION OF AMERICA

Mr. SCOTT. Good morning. Mr. Chairman, and Members of the Committee, I thank you very much for the opportunity to testify today. I am the Policy Director for Free Press; we are a young organization. We're about 3 years old. We're a nonprofit, nonpartisan public interest group dedicated exclusively to communications policy. We are both consumer advocates here in Washington as well as grassroots organizers out in the country where we have, I'm pleased to say, over 225,000 individual members. Our members are just regular citizens who care about communications issues and want to know what's going on in the Congress. Like most Americans our members don't investigate the policies that bring them telephone service. They just expect it to be there. And as technology changes, and their lives change with it, so will their expectations change.

The focus of my testimony this morning will be on these changing expectations and the expansion of Universal Service to broadband. It is no longer debatable in my opinion whether broadband will be the dominant form of communications in the 21st century. It is simply a fact. In this light, the public policy commitment that you have made to ubiquitous communications has never been more important. That said, as we have heard this morning, Universal Service is not without its problems, some of them quite severe. And yet we view the Universal Service predicament as both a threat and an opportunity. We believe that as communications technologies evolve USF must evolve with them, and to that end, we support the expansion of Universal Service to broadband as the organizing principle for reform.

We applaud this Committee and the legislative work of Senators Burns, Smith, Dorgan, and Pryor for beginning this important transition. On Tuesday morning, Senator at the first session of this hearing I listened with great appreciation to Senators on this Committee express their wish that USF had not been tied to telecommunications alone, that we'd just drop the tele off the front end. So I went back to my Communications Act and I looked at Section 254 and I found that you did exactly that in 1996 by instructing the FCC to base its USF programs on advanced telecommunications services and information services.

Now, there's little doubt in my mind that Congress intended to capture in this definition the evolving modes of 21st century communications, certainly including broadband. That the FCC did not use its discretion to follow this principle does not detract from the spirit of the statute. And in my view this Committee and this Congress had it right in 1996, and you've got it right now. USF should be flexible, technology-neutral, and evolve over time to meet the needs of consumers.

I'd like to move along and bring to the Committee's attention the consequences of not taking swift action to expand broadband penetration. As this Committee has heard many times in hearing after hearing this year the United States has fallen from five to number 16 in the world in broadband penetration since 2001, and yet we have never heard a satisfactory answer as to why that is. So we set out to find one and we did a study based on the OECD's examination of global broadband penetration and you'll find the study as an appendix to my testimony.

The conclusions of this new research directly tie our global broadband competitiveness to Universal Service policy. I'd like to briefly highlight two of the findings. First, contrary to conventional wisdom our low population density compared to other nations such as Japan, South Korea, and Sweden does not account for our global broadband rank. In fact we found that population density explains very little of the performance relative to other nations. And I believe this suggests we can no longer accept the myth that being rural means accepting poor broadband performance. Our research indicated that the most important factor retarding our broadband penetration rates is poverty. The simple reality is that in areas with high poverty rates and high infrastructure costs we often lack services that meet the needs of low-income and fixed-income households. According to a Pew study released just early this week,

broadband penetration rates in urban areas are 39 percent and in rural areas they are 24 percent. And I'm sorry to say that that gap has held constant for several years. The key issue here in my mind is affordability, and the USF program is uniquely suited to address this problem if we can apply its support to broadband. If we fail to do this successfully we can be sure that jobs and investments will flow out of our communities rather than into them.

I'd like to conclude by offering a set of forward looking principles for USF reform. First, I believe we should explicitly expand USF to broadband in a technology-neutral manner. Second, I believe we should broaden the base of USF contributions, equitably assessed and technology neutral, to stabilize the future finances of the Fund. Third, we should begin a transitional phase leading to a point where all USF-eligible networks are broadband compatible. Fourth, we should tighten oversight of the Funds in order to track how distributions are spent, who qualifies to spend them, and what the results of that spending will yield.

And finally, I believe we should implement USF reform in conjunction with a comprehensive set of broadband policies including opening up more of the public airwaves for wireless broadband. We strongly support the bill put forward by Senator Stevens as well as Senators Allen, Kerry, Sununu, and Boxer that open the empty television channels for wireless broadband. I think we should also enhance and protect competition by opening the market to any broadband service provider, public or private, and advance an enforceable policy of network neutrality.

And, finally, I think we should improve the strategic investment in broadband infrastructure through more effective use of the RUS grants and by reinstating the technology opportunities program at the NTIA.

There are no easy solutions to correcting the problems of Universal Service but they must be addressed based on ubiquitous, affordable access to broadband. Without that commitment we cannot hope to correct the problems that have plunged us down the ranks of global competitiveness. We urge the Committee to act prudently, swiftly, and in the spirit of the Communications Act. I thank you for your time and attention and I look forward to your questions.

[The prepared statement of Mr. Scott follows:]

PREPARED STATEMENT OF BEN SCOTT, POLICY DIRECTOR, FREE PRESS; ON BEHALF OF FREE PRESS, CONSUMERS UNION, AND CONSUMER FEDERATION OF AMERICA

Summary

Free Press,[1] Consumers Union,[2] and Consumer Federation of America[3] appreciate the opportunity to testify on the issue of distributions from the Universal Service Fund. As consumer advocates, we strongly support the USF programs that have delivered essential communications services to low-income households, rural areas, schools, libraries, and rural health clinics. We recognize the fiscal crisis of falling receipts and expanding expenses in the program demands reform. Yet we view USF's present predicament as both a threat and an opportunity. We believe that as communications technologies evolve, USF must evolve with it. We support the expansion of USF support to broadband as the organizing principle to overhaul its contribution and distribution systems.

The debate over USF reform is complex, and there is a danger that in the quest to iron out the details of implementation, the Congress will lose sight of the principles driving this policy. There are dozens of difficult questions to resolve, but we urge the Committee to stand firmly on the ideals articulated in the Communications Act of 1934 and reaffirmed in 1996. The cornerstone of this legislation is the commitment to providing communications services to every American household, without regard to geography or income, at an affordable rate and a robust quality of service. The legislative history of USF indicates that Congress has already committed itself to expanding Universal Service support to broadband networks. Not only should we do this, we cannot afford to delay.

The urgency of the "broadband problem" in the U.S. is severe. The Committee is now familiar with the statistics of America's swift decline in the global ranks of broadband penetration. This testimony provides new evidence to understand why. The results of our study have critical implications for USF policy. Contrary to conventional wisdom, America's low population density does *not* account for our poor broadband performance. The key factors explaining our difficulties are high prices for service and a substantial low-income population that cannot afford them. Other nations have solved these problems with strategic investment and comprehensive broadband policies to deliver affordable service. USF is uniquely suited to reverse our broadband fortunes, bringing affordable service and new investment where we need it most—to low-income and rural areas that have heretofore been trapped on the wrong side of the digital divide.

There is no magic formula for solving the Fund's problems. To begin, we must agree upon shared goals. To that end, we offer a set of principles for implementing a 21st Century Universal Service Fund. We support extending USF to broadband by expanding the base of contributions in a technologically- and competitively-neutral manner. After a transition period, USF eligible carriers should be broadband compatible. We believe the size of the Fund must be disciplined through careful oversight and accountability, market incentives, and strategic investment in infrastructure. We should support carriers without regard to technology, provided that each can meet standards for affordable broadband and telephone service at a robust quality of service. Finally, we should approach USF reform as one piece in a larger set of broadband policies that includes opening up the spectrum for innovative wireless technologies and protecting competition in Internet services.

We strongly encourage this Committee to uphold the remarkable and progressive commitment to Universal Service that is the foundation of our communications policy. Expanding USF to broadband is an essential step on our path to reforming the system by maximizing the return on public investment and regaining our position as a global leader in technology and communications.

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[1] Free Press is a national, nonpartisan organization with over 225,000 members working to increase informed public participation in crucial media and communications policy debates.

[2] Consumers Union is a nonprofit membership organization chartered in 1936 under the laws of the State of New York to provide consumers with information, education, and counsel about goods, services, health and personal finance, and to initiate and cooperate with individual and group efforts to maintain and enhance the quality of life for consumers. Consumers Union's income is solely derived from the sale of *Consumer Reports,* its other publications and from noncommercial contributions, grants and fees. In addition to reports on Consumers Union's own product testing, *Consumer Reports* with more than 5 million copies in paid circulation, regularly carries articles on health, product safety, marketplace economics, and legislative, judicial and regulatory actions which affect consumer welfare. Consumers Union's publications carry no advertising and receive no commercial support.

[3] The Consumer Federation of America is the Nation's largest consumer advocacy group, composed of over 280 state and local affiliates representing consumer, senior citizen, low-income, labor, farm, public power, and cooperative organizations, with more than 50 million individual members.

Starting From Principle

As Congress looks to resolve the thorny problems of reforming the Universal Service system, we urge Members to start with the principles that lie at the base of the Communications Act. The purpose of the Act was to regulate communications networks "so as to make available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex, a rapid, efficient, Nationwide, and world-wide wire and radio communications service with adequate facilities at reasonable charges."[4]

This principle—strongly reaffirmed in 1996—is the simple, powerful, and fundamentally progressive commitment to universal, affordable access to communications services for all Americans. It is this policy that has brought telecommunications to schools, libraries, rural health facilities, low-income households, and rural areas at reasonable rates and adequate quality of service. The vital importance of this program is clear to anyone who has ever lived in rural America, or struggled to make ends meet. The economic case for affordable access is clear, and research produced by consumer groups has been documenting it for many years.[5]

The public policy commitment to ubiquitous communications has never been more important than now. Standing at the threshold of an information technology revolution, we cannot and should not abandon or weaken our guarantee of universal, affordable access. Granted, the communications marketplace has changed substantially since 1996—the last time USF was comprehensively addressed. The needs of our society and economy have evolved, and USF must evolve with them. The labyrinthine complexity of USF distribution—with both its successes and shortcomings—must not be allowed to blind us from the bottom line: Broadband is now, undeniably, the essential communications medium of the 21st century. Broadband networks are the "adequate facilities" that we must provide to all Americans at "reasonable charges."

Yet, as in past technological paradigms shifts, rural communities and low-income groups have been left behind. The economic costs of this digital divide are severe—curtailing the educational, economic, and social opportunities for a significant sector of our society. It is no secret to this Committee that the United States lags badly behind other nations in broadband penetration. The longer we wait for universal deployment of broadband to every region of the country, the further behind our global competitors we will fall. Not only should we apply USF to broadband, we can't afford not to. This is the only way to get back on track toward the President's stated goal of universal affordable broadband by 2007.

The current financial crisis in the USF programs and the difficulty in ensuring USF support delivers a strong return on investment have been readily identified as threats to a successful policy. But needed reform is equally an opportunity. We should look to reform USF both to address its long-term stability, and to use it to bridge the broadband digital divide. The cornerstone of this policy historically, and now, must be a commitment to bringing affordable service to average citizens. At the time of the Communications Act of 1934, telephone penetration rates were around 40 percent—very similar to where we currently stand with broadband.[6] The vision that inspired a policy that brought that telephone penetration rate above 90 percent must now be applied to high-speed Internet access.

There is much debate about whether it is appropriate to expand USF to cover broadband. However, a close look at the 1996 Act makes it quite clear that Congress has already decided on this question. Many of the Senators on this Committee fought for a broad, progressive definition of the communications services that would be guaranteed to all Americans. They had it right a decade ago. They still have it right today.

In Section 254 of the 1996 Act, Congress instructed the FCC to define the services that would be supported by USF; and the Commission did not include broadband. However, Congress also instructed the FCC to base its policies on a set of explicit principles in Section 254(b). The first called for making quality communications services available at reasonable rates. The second read: "Access to advanced telecommunications and information service should be provided in all regions of the Nation." If that statement lacks full clarity, we have the third principle as a further

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[4] *Communications Act of 1934,* 47 U.S.C. 151.

[5] See for example the work of Mark Cooper: "Disconnected, Disadvantaged, Disenfranchised: Explorations in the Digital Divide," Consumer Federation of America and Consumers Union, October 2000, *http://www.consumersunion.org/pdf/disconnect.pdf;* "Expanding the Digital Divide and Falling Behind on Broadband," Consumer Federation of America and Consumers Union, October 2004, *http://www.consumersunion.org/pub/ddnewbook.pdf.*

[6] Mark Cooper, "Universal Service: A Historical Perspective and Policies for the Twenty-First Century," Consumer Federation of America and the Benton Foundation, 1996.

guide. It read: "Consumers in all regions of the Nation . . . should have access to telecommunications and information services, including interexchangc services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas." There is little doubt that Congress intended to capture in this definition the evolving modes of 21st century technologies—certainly including broadband.[7]

Some would argue that we cannot apply USF to broadband because a "substantial majority" of the public does not subscribe—a condition for applying USF support to a new service under Section 254(c). However, this misreads the statute. The "substantial majority" clause is subsequent to the Congressional commitment to covering advanced telecommunications and information services in Section 254(b). The conditions in Section 254(c) are not meant to modify the previously defined set of services that already fall under the principles of USF support ("telecommunications and information services, including interexchange services and advanced telecommunications and information services"), but rather the next generation of services, such as wireless telephony. In this analysis, the FCC may use its discretion to expand the scope of USF to broadband in ways it has not chosen to do in the past.

But we need not get bogged down in statutory disputes about whether broadband should be appropriately supported by USF. Broadband capable networks are already supported by USF. Many of the Local Exchange Carriers (LECs) in rural areas have built converged networks that carry both voice and broadband data. This is a sensible investment, as a converged platform is a more efficient and forward-looking infrastructure. Many rural LECs receive resources from the Rural Utility Service, a fund that has made broadband compatible plant a requirement for grants and loans for many years. The E-Rate program has explicitly invested USF resources into Internet access for schools and libraries. This is sound policy based in the clear principles articulated by Congress in 1996—and it should be formally adopted in USF reform.

The USF system does have a checkered track record and some serious problems. There is virtual consensus that we need reform. The program faces a financial crisis at present because of declining receipts and expanding outlays. If broadband becomes an explicit part of USF, these issues must be immediately addressed. To do this, there will be a significant number of tough questions this Committee will face in an effort to overhaul the system of contributions and distributions. But this is no time to turn from the principles that have proven so successful. Nor is it time to lose sight of the real problems that USF is meant to solve—our communications inequalities.

Diagnosing the U.S. Broadband Problem

The crisis in USF is severe, but the crisis it is intended to address is arguably much worse, and certainly portends more dire consequences to the health of the U.S. economy. As this Committee has heard ad nauseum in hearing after hearing this year, the U.S. has fallen out of the top 15 nations in broadband penetration. It bears repeating here because this testimony will bring new data to the question. This new research directly ties our global broadband rank to the issue of Universal Service.

Defenders of current broadband policy have argued that America's low global ranking is misleading because our population density is so low compared to smaller nations such as Japan, South Korea, and Sweden.[8] Noting that Canada outperforms us in broadband penetration despite its size and population density, we investigated this question. We analyzed the data from the OECD study of broadband in 30 nations and specifically controlled for population density. The results are striking. [See Appendix.] Population density turns out to have very little impact on our relative broadband performance compared to other nations. Far more important are median household income, the poverty rate, and exposure to Internet technologies inside and outside the home.

Rural areas are indeed underserved—broadband penetration rates in urban areas are nearly double those of rural areas. Yet, our research indicates that geography is a factor in depressed broadband penetration because of two higher order causes that are characteristic of rural areas—the price of service and the low-income levels of potential subscribers. It costs more to build rural infrastructure, which raises prices, and the disposable income of the average rural family is lower than average. Additionally, rural areas tend to have a disproportionate number of retired Americans on fixed incomes. These factors result in depressed broadband penetration.

[7] *Communications Act of 1934,* 47 U.S.C. 254.

[8] See for example, FCC Chairman Kevin Martin, "United States of Broadband," *Wall Street Journal,* July 7, 2005.

These conclusions comport with the findings of a study by the Pew Internet and American Life Project.[9] Our research also confirms a recent survey showing that over 45 percent of broadband *non-subscribers* in the U.S. do not subscribe because of high prices. A further 10 percent report that service is unavailable.[10] The combination of high prices and poor people results in lower technology exposure and adoption in rural America.

On the question of exposure to the Internet, another key factor in promoting broadband penetration, Pew found that 32 percent of the adult population does not use the Internet—a figure that held steady for the first half of 2005.[11] But our problem is not only with adults, it is also children. Of the 30 nations in the OECD study, the U.S. ranked 26th (ahead of only Mexico, Turkey, and Slovakia) in the percentage of 15-year olds that have used a computer. Other nations are winning the broadband race because they are bringing technology and services to low-income areas.

The USF program is specifically designed to address these problems and is uniquely suited to do so if we apply its support to broadband. There are plenty of rural communications providers. The issue is finding the right balance of subsidies to incent investment and to make their products affordable to low-income Americans. Expanding USF support to broadband is a logical step to correcting the negative trends in our broadband markets. First, USF brings service to rural and low-income areas at affordable rates. Perhaps no other single policy is more important to our long-term broadband prospects. Second, USF supports discounted Internet access in schools and libraries, which frees resources to buy PCs for the computer labs that connect to these lines. These public institutions serve to expose our young people to technology and catalyze the residential market for home computers and broadband services.

Other nations have used strategic direct investment in broadband infrastructure in low-income and rural areas to outperform us across the board. We should take note and plan accordingly. Policies that stimulate low-income consumer demand will improve the U.S.'s broadband situation. Universal Service policy applied to the broadband market will play a positive role in bridging the economic and rural digital divides. This in turn will significantly improve U.S. broadband performance relative to other leading nations.

General Principles of Implementation for USF Reform

As consumer representatives, we look to USF reform as an opportunity to extend the burden of contributions more equitably *and* to broaden the scope of distributions more effectively. The principles for implementing USF reform in 2006 must carry the same spirit as the principles for implementing USF in 1996. The functions, however, must be more forward looking. USF reform should:

- Explicitly expand USF to broadband and set a level of service and a target price comparable to dominant technology in urban areas. The FCC's broadband definition of 200 kbps is unacceptable and backward-looking. It must be revised to ensure appropriate levels of service.
- Broaden the base of USF contributions, equitably assessed and technology neutral, to stabilize the financial future of the Fund.
- Tighten the reigns of oversight and control that ensure disclosure of how the Fund's distributions are spent, who qualifies to spend them, and what the results of that spending yield. Increased data collection to make these assessments, including determining the capacity of lines in service areas, will be a key component to understanding how and where to make strategic investments in infrastructure.
- Find the right balance for USF subsidy. If the subsidy is too big, investment does not flow to the most efficient provider and rate paying consumers are overly burdened without a commensurate benefit. The inter-industry wrestling over revenue must be exposed to scrutiny and untangled fairly. Consumer contributions to the Fund must produce a tangible social and economic benefit in the form of a more robust network and catalyzed economic growth. We have real

[9] See Peter Bell, Pavani Reddy, and Lee Rainie, "Rural Areas and the Internet," Pew Internet and American Life Project, February 17, 2004, *http://www.pewinternet.org/PPF/r/112/report_display.asp.*

[10] Yankee Group Research, Inc. February 2006, cited at *http://www.emarketer.com/article.aspx?1003833.*

[11] See John Horrigan, "Broadband in the United States: Growing but Slowing," Pew Internet and American Life Project, September 21, 2005, *http://www.pewinternet.org/PPF/r/164/report_display.asp.*

success stories with broadband provision by carriers of all kinds—we should identify those blueprints and duplicate them.

- Invest in a technology-neutral manner that promotes the least costly, most efficient systems that meet robust quality of service standards.
- Begin a transitional phase leading to a point when all USF eligible carriers offer broadband compatible networks. The converged IP platform that carries both voice and data is more efficient, more robust, and not substantially more expensive than PSTN upgrades. As the PSTN equipment depreciates and requires replacement, it should be replaced with an IP platform.
- Discipline the size of the Fund through rigorous oversight, realistic maximum allocations, forward-looking cost assessments where appropriate, and sliding scales of eligibility and reimbursement. The FCC and State utility commissions should work in tandem to develop new protocols that make sense for a USF that supports 21st century communications services.
- Reform USF in conjunction with a comprehensive set of broadband policies. These should include:

—Opening more of the spectrum for unlicensed wireless broadband.

—Focusing on competition inducing policies that counterbalance mergers.

—Strategic direct investment in rural broadband infrastructure.

—Reinstatement of the Technology Opportunities Program at NTIA.

—Encourage community development programs as broadband partners in order to expand access to low-cost equipment and technology training.

Conclusion

There are no easy solutions to correcting to the problems of the Universal Service Fund. But they must be addressed based on the same principles that have always guided progressive communications policy—a commitment to ubiquitous, affordable access to the most important technologies of the era. Broadband unquestionably qualifies as the dominant communications service of the 21st century. The benefits of applying USF to broadband outweigh the costs by a wide margin. Without a strong, comprehensive policy commitment to developing our broadband markets, we cannot hope to correct the problems that have plunged us down the ranks of global competitiveness. We need policies that give the "green light" to investment in communications infrastructure in rural and low-income America with a strong commitment to accountability, efficiency, and oversight. We strongly encourage this Committee to uphold the remarkable and progressive commitment to Universal Service that is the foundation of our communications policy.

The article submitted with this prepared statement titled, Broadband Penetration in the Member Nations of The Organization for Economic Cooperation and Development—Why Does the U.S. Lag Behind? has been retained in Committee files. The article is also available at *www.freepress.net/docs/us__lag.pdf.*

Senator BURNS. Mr. Scott, thank you very much, and you raise some very, very interesting points in your testimony and I appreciate that. Senator Stevens.

The CHAIRMAN. Thank you very much, Mr. Chairman. I'm participating in another hearing, in a markup, and also an item on the floor so I'm going to be in and out. Just want to ask you to put my opening statement in the record and to congratulate you for these witnesses. Before I go, I've got about 5 minutes. Mr. Scott, what's your background?

Mr. SCOTT. I did a Ph.D. at the University of Illinois in communications and worked on the House side for a little while before I went into the nonprofit world.

The CHAIRMAN. Is your group bipartisan as well as nonpartisan?

Mr. SCOTT. We try not to get involved in party politics.

The CHAIRMAN. That means you can be all one-sided.

[Laughter.]

Mr. SCOTT. We're goal-oriented, sir.

The CHAIRMAN. I like what you say and I like what you're doing. How would you suggest we find a way for that coverage of broadband you asked us to make?

Mr. SCOTT. Well, I think the contribution side is a complex problem that the Commission is considering. I think the approaches that have been put forward by Members of this Committee as well as outside researchers to apply contributions to numbers or connections or capacity are interesting ideas. I'd like to see more research to show what is the most efficient system. My own preference is for a capacity approach that recognizes that low-volume users should contribute less than high-volume users.

The CHAIRMAN. Do you know what they call Universal Service out in the villages of Alaska? POTS, plain old telephone service.

Mr. SCOTT. Sure.

The CHAIRMAN. Now, I would like to pursue your objective but I understand you have some questions about that though, about expanding broadband through Universal Service payments, is that right? No?

Ms. BLOOMFIELD. Actually, one of the things that I think is important, Mr. Chairman, is that NTCA does a broadband study every year and our last study for 2005 showed that 95 percent of our telephone companies are providing broadband to a vast majority of their service markets. One of the questions for this Committee becomes a big issue about pushing those take rates. Our take rates are still hovering below 20 percent, so in a lot of cases the infrastructure is there. The question is what kind of policies can be implemented to actually create opportunities and incentives for people living in these markets when some of them are lower incomes to actually take the service.JLW

The CHAIRMAN. It's my understanding that there's a question here about block grants of whether we should use block grants or use Universal Service funds in the very high-cost areas. Didn't you raise that question?

Ms. BLOOMFIELD. I would be happy to answer that question.

The CHAIRMAN. Did you raise it though?

Ms. BLOOMFIELD. We submitted something to that effect to the record. If I could say, I think if you look at the Federal Fund as it exists, you have 95 percent penetration in all markets across the country, and, with all due respect, in terms of block grants there is something to be said for a Federal distribution system as opposed to states kind of creating winners and losers among themselves. And I think that when you allow states to create winners or losers you may have carriers in states where the state has no incentive to actually fight for some of the funding. I think you also add more layers, you add 50 different layers and different processes as we've seen in states that create their own ETC designation. So when it comes to things like block grants we feel very strongly in terms of actually using USF federally to build the infrastructure and that there are going to be some states, some carriers and some consumers in those states who will lose through that process.

The CHAIRMAN. Thank you. In most instances the people who get the Universal Service payments in rural areas are the carriers of last resort. I think we'd agree to that, wouldn't you, just generally? Who would like to answer the question whether competitors, new

competitors, should get the same Universal Service, should we duplicate payments on the same rural area in order to stimulate competition?

Mr. HUGHES. I'm sorry, I didn't understand the question.

The CHAIRMAN. You have a carrier that's taking Universal Service into a rural area?

Mr. HUGHES. Yes, sir.

The CHAIRMAN. You have some that are coming in now that want to bring another technology base and provide service in that area.

Mr. HUGHES. Yes, sir.

The CHAIRMAN. They're asking for Universal Service payments, too. Do you believe we should duplicate Universal Service areas to the same high-cost area?

Mr. HUGHES. Well, currently, it's my understanding of the way it's done it's not duplication. Cellular South is authorized to provide service in a USF area in Mississippi and we do have that requirement. The same requirement that the RBAC or the incumbent ILEC has, and we thought we had it all along, we've tried to reach it and to approach with the same methods and the same requirements that it be something that can reasonably be done as is put upon the ILEC. So we're experiencing that right now so we're not having a problem with that.

The CHAIRMAN. Thank you. I'll be back, Mr. Chairman. Thank you all for——

Senator LOTT. Can I get in here at some point, too?

Senator BURNS. Yes, sir. Senator Lott, you've been kept silent here for——

STATEMENT OF HON TRENT LOTT,
U.S. SENATOR FROM MISSISSIPPI

Senator LOTT. Well, I was a little late in arriving and I apologize to my colleagues and I'll ask consent that my statement be put in the record.

Senator BURNS. Without objection.

Senator LOTT. I do want to thank the panel. I didn't get to hear the first two witnesses but I was impressed with the ones I did hear. Mr. Scott, you lived up to your self-described billing, soft-spoken but powerful statement and an interesting one.

As you know, I was very much involved in the writing of the 1996 Telecommunications Act and we established a lot of rules and regulations which the industry has been dealing with. Obviously technology has changed. Even in 1996 we were still thinking primarily, about hardlines and how you get more competition. We had no idea the explosions or options and opportunities and technologies that have taken place and we clearly need to have a telecommunications reform act this year to get up to speed with what's going on. So I'm hoping that this Committee—we've been having a lot of listening sessions, a lot of hearings, we need to mark up a bill here in the next couple of months. A critical part of that is going to be, how do we deal with the Universal Service Fund and who contributes, as you pointed out, and who benefits. My state is a big beneficiary. Out of the 66 entities that get these funds we're number six. And there's good reason for that. We have a lot of rural areas, we have a lot of poverty, and we want to make sure

that the best possible service reaches out to those rural areas. And I think some good progress has been made in my state. I'm particularly proud of our testimony here from Carson Hughes with Cellular South. He did a good job today even though I missed the very beginning of it, but I had an idea of what he was going to say and how he was going to say it because he and I have been exchanging pleasantries since the 1960s when we were college friends and fraternity brothers. He sends me Internet messages all the time which I can't even get off the Internet but my staff gives them to me.

But I do think that you're right. Several of you have said—well, before I come back to Mr. Scott I want to acknowledge what Carson Hughes said in his testimony. After the hurricane, Cellular South really was very good, their service was better than just about anybody else. How do I know? Because I was down there trying to use hardlines which were all down. Intercommunication between the disaster area and the rescue groups was almost nonexistent. I had two cell phones, one which worked, and one which did not. And the one that worked was Cellular South. They were very good in the aftermath of the hurricane throughout the region. A lot of the region is not just the coastal developed area. You get 10 miles off the Gulf Coast and you're in some pretty rural areas, so I want to thank the company for the job they did after the hurricane.

Mr. Scott, you're right in your testimony. There's no real excuse for the United States dropping to 16th in the world in terms of provision and adoption of broadband. We've got to do a better job. And we're going to try to find a way to do it. There's no question we gave the FCC authority in the Act. You referred to that Section. But, the FCC has had a lot on them, and I think they've been trying to deal with a lot of advancing technology. They've done a good job, in some areas more than in others, and I've been very critical of them. I think we need to do more. I want to make sure that we get this good service to New York City as well as Nitta Yuma, Mississippi. And so we're going to work with you and all sides of this debate to make sure that we have a good way to collect the money and a fair system of distributing it, and it has got to be fair on both ends.

So your testimony will be helpful and I'll review it all very carefully. While I don't always jump out and co-sponsor legislation immediately, I keep my powder dry as long as I can so that I can then maybe be helpful in the end to help produce a good product. Good work has been done and we look forward to working with you over the next 3 months as we move this legislation forward. Thank you.

[The prepared statement of Senator Lott follows:]

PREPARED STATEMENT OF HON. TRENT LOTT, U.S. SENATOR FROM MISSISSIPPI

When the Telecommunications Act of 1996 was passed, we established a lot of the rules and regulations under which the industry plays. Technology has changed the industry, so we must adapt legislation to make sure that every American has the resources they need.

Getting Internet, telephone, and cable to all rural areas is a challenge. This Committee must take it upon itself to make sure that the Universal Service Fund provides telecommunication services to ALL rural areas.

There is no excuse for the United States to be Number 16 in the provision and adoption of broadband in the World. America is the most powerful Nation in the world, but most importantly, it is the land of opportunity and it is our job to make

sure that every American has the telecommunication services they require to fulfill their dreams through that opportunity.

This Committee and the FCC both have an obligation to ensure that every citizen receives affordable and quality broadband, cable and telephone service whether they live in New York City or Nitta Yuma, Mississippi.

Senator BURNS. Mr. Sununu, you just joined the Committee. Do you have a statement, sir?

Senator SUNUNU. I don't have a statement, no, and I have a few questions that maybe I'll phrase in the form of a statement. But I'll be happy to have some of the other members——

[Laughter.]

Senator BURNS. Thank you very much. Mr. Scott I was interested in your statement. Are you suggesting in your testimony that the USF fund, the use of those funds be based not on the cost, but also the economic or the economy scale of the areas they serve?

Mr. SCOTT. Well, you're pressing my level of expertise on the criteria requirements for certifying a study area. But I definitely think that there's good reason as we move from a dial-tone world to a broadband world to look very carefully at what the criteria should be for eligibility and what the most efficient methods to invest public resources in that area are to deliver the services at the lowest possible cost to every household in that area.

Senator BURNS. Well, there are a lot of us here that have gone from this business of business-learning in healthcare and when you go into healthcare, and you have corresponding hospitals and clinics and everything else talking to each other, that requires broadband and we can't get around that. And so I was interested in that.

Mr. Clark, Commissioner Clark, you might tell us just for the record the Antideficiency Act, how important that is, why it is necessary, could you do that for the Committee just for the record?

Mr. CLARK. Sure.

Senator BURNS. Because you deal with it as a State Commissioner.

Mr. CLARK. You bet. I have not heard anyone suggest that a permanent exemption, or that an exemption from the ADA is something that's not warranted in this particular case, and it helps with the efficiency of the Fund itself in helping to keep whatever methodology is chosen as minimal as possible. NARUC as an association is very supportive of a permanent exemption from the ADA. We do not see the uncertainty that's caused by a year-to-year exemption as a positive thing.

Senator LOTT. Don't you think though, if you'll yield, that we should come up with a system where that permanent exemption is not necessary?

Mr. SCOTT. Mr. Chairman, Senator, the contribution side is clearly a very key question in supporting the Fund. Hopefully, yes, whatever fixes it is great and it will probably create, a statutory fix will probably be needed, could at that time make that unnecessary.

Senator LOTT. Can I infringe on your time just a minute more because this is——

Senator BURNS. I have a feeling you're going to do it anyway.

[Laughter.]

Senator LOTT. My buddy here. You all are right and this is very helpful as you point out, yes this is the crux of the conundrum. What we need though is some ideas. You're saying good luck; we hope you can find a good fix. And, you know we're going to have to take the flak for what we decide and we don't like that. We would like to be able to blame it on your recommendations.

[Laughter.]

Senator LOTT. Now, Mr. Scott, you're brilliant. You got a Ph.D. in telecommunications from a university up there in Illinois. You've got to give us some suggestions here how we may do this thing and do it in a fair way. Thank you, Mr. Chairman. Would you like to respond to that?

Mr. CLARK. Well, as elected commissioner I certainly appreciate your perspective. Senator, this is just speaking for myself and not necessarily the association. The FCC has suggested and appears to be leaning toward a numbers-based type contribution methodology. And from my own perspective, I think that may be acceptable in the short-term but pegging it too closely to numbers in the long-term, I don't think probably works. Because what we're talking about I think is a fund that's evolving to supporting networks as opposed to a particular service, such as voice, which is what it's currently pegged at; and so I think it's an interim solution, but frankly, probably something more connections based or total company revenue based is a longer term solution.

Senator LOTT. I don't think you got in too much trouble with that.

Senator BURNS. No, I think you did good.

[Laughter.]

Ms. Bloomfield, let me ask you, are there areas that we serve in rural America and where USF has met a point of diminishing returns, where, in other words, subsidy is not necessary because of competition and other factors? Have we got carriers collecting Universal Service funds now that probably do not need them?

Ms. BLOOMFIELD. I think the important distinction Senator, is that Universal Services are a cost-recovering mechanism. So in reality the carriers are getting reimbursed for investments that have already been made into the infrastructure. And I think—I know sometimes people like to kind of present incumbents as these ancient carriers, but in reality they created the most efficient networks that they could, and I think as we see technology evolving, we see the interest in VoIP and IPTV and broadband services. I think that infrastructure needs to be maintained.

I think the other key component; we've talked a lot about where wireless fits in. I think we've seen since 9/11 there is a value in some redundant networks and I think that there is something to be said for rural residents having access to both networks. And at some point you've got to judge what makes sense. For example, in the State of Wisconsin there's a study area that has six ETCs. Do you need six ETCs that are actually all getting the incumbent's cost? At some point you hit some inefficiencies. But I think there are ways to take a look at some of these things as a way to ensure that if things are done correctly and where carriers are kind of assessed either, certainly the incumbents have their costs. What I was curious looking at was a more efficient way of doing it whether

it was a proxy model of some sort; it can keep the Fund sustainable. But I think as Congress and policymakers look toward that goal of making sure that all Americans have access to broadband, I would say in all honesty, networks continue to need to evolve.

Senator BURNS. Tell me in rural settings and you'd be on a wireline and now I've got a cell phone, do we see those customers dropping their wired service?

Ms. BLOOMFIELD. There certainly has been a drop in wireline services. The one component I think people don't fully understand, is that wireless services need wirelines as well because what happens is there's a backhaul issue where you're on your cell phone, you're placing a call, it's going to the mobile switching center. And in a majority of the cases those calls are going over a backhaul system over a wired network. So in reality there is some relationship between the two networks. So you can't simply do away with the wireline network and assume that those wireless phones will actually work.

Senator BURNS. Senator DeMint.

Senator DEMINT. Thank you.

Senator BURNS. I've taken up too much time here already.

Senator DEMINT. Sure have taken a lot of time, Mister.

[Laughter.]

Senator DEMINT. I'd first like to start by correcting the record in my opening statement. I used some figures that were incorrect. The current USF fund is $7.1 billion a year and 10 years estimate's around $50 billion. I think I mentioned around $500 billion. I added an extra zero but that's a real difference even in Washington, so I think when you get up that high you are talking about a real difference.

Senator LOTT. That's talking about a real difference.

Senator DEMINT. I think when you get up that high you are.

Just a couple of points. I do appreciate the testimony and Mr. Scott; I'd like to just add one thought to your thinking, the poverty problem is important. It's also important to recognize that poverty is heavily correlated with illiteracy in this country and no amount of technology or connectivity is going to overcome that. Communication could be part of the solution in rural areas as far as overcoming illiteracy, but subsidies to connect with an illiterate population is maybe getting the cart before the horse. I hope you'll include that in your substance.

Just a couple of thoughts, I know a little bit about living in the country and I think a lot of the kind of presumption of our testimony today has been that we need to make living in the country the same as living in the city. So we need to have the same services, and I think all of you know on the surface we can't do that. I mean, when you live in the country you might not have a sewer line, you have a septic tank but you have service. You might not have city water, you have wells, but you have service. There's no bus service and taxi service, probably not an interstate highway close by, the trash pickups you might actually have to take it yourself, schools are a little longer drive. The Federal Government cannot make living in the country the same as living in the city and we shouldn't. But I think if we use some common sense, particularly when it comes to communication, we can still make sure that

folks living in the rural areas of America have the best in the world. But I think it requires some new thinking, and I think Senator Lott was pleading for some suggestions here, and I know when Senator Stevens was here a while ago he asked the question about whether we should duplicate the cost if we have a primary carrier there receiving USF funds. Should we also fund the competitors as they come in, will that help? And I kind of want to just ask a question of the panel, maybe some of you will volunteer to this, I believe the whole cost recovery method of reimbursement is a flawed system at this point. Perhaps it was needed in the beginning but it creates a lot of perverse incentives and certainly does not encourage efficient delivery. My question to you, and I think this would get at the concerns about duplication as we have more competitors, is there anything wrong with a system where the carriers are reimbursed based on their numbers of customers that are served and the types of services that they get and the performance or the quality that is delivered? So it wouldn't matter necessarily how many carriers came in if one replaced a hardline with a cell phone then the hard line loses reimbursement and the cell phone may get that additional reimbursement. I'm just looking for ways to fund this that might become sustainable over time so that we can actually provide the services to the rural area, but not necessarily just subsidize the various technologies. So would anyone like to volunteer?

Mr. HUGHES. Let me first of all maybe correct what I may have left as a false impression that when a competitive ILEC comes in and is an ETC and is allowed to have USF service under the current configuration, they don't get money until they have customers. They get paid based on the customers they have so that may address part of your question.

Senator DEMINT. Do they not have a cost recovery type of payment system?

Mr. HUGHES. No, sir. Their current, and we think it's a good plan, now it's based upon some sort of a mark that's in the ground that in this case that mark is the cost per line that is used by the incumbent ILEC in that particular area. Now——

Senator DEMINT. So even if the new carrier comes in with something that is more efficient and cost effective, they're paid based on the cost of the existing carrier lines?

Mr. HUGHES. Well, you have to remember the quick answer is on a per line basis, that is correct. You have to remember that no money flows through to that competitor until he has a customer within that area, then that particular competitor has to make an accounting for the monies that flow to him to—in our case——

Senator DEMINT. Based on how much he spends?

Mr. HUGHES. Every bit of USF funds he gets he has to put back in the high-cost area. In an effort to meet this criteria, you try to give them reasonably comparable services to what's enjoyed in the urban area. So, whatever dollars we get we turn around and put them back in that rural——

Senator DEMINT. Which is based on how much you can spend?

Mr. HUGHES. No sir, it's not based on how much you can spend. It's if you can get enough customers, the more customers you get the more money you get, but if you spend a billion dollars out there, it has no impact on the amount of money you recover di-

rectly. It might give you more customers which in turn may give you more money.

Senator DEMINT. But if you've got a telephone, a hardline service to the home, that carrier gets money for that, and if that same customer gets a cell phone, that cell phone company gets money for that. And then we want to get some additional broadband service, that carrier's going to get service for that, so we're going to subsidize three or four different technologies in one home.

Mr. HUGHES. Currently the wireless system is a competitive system, were it feasible to just go out there without any support whatsoever, they'd be there now. They'd be there now. So the places that have the lack of service, that is an indication that they need some support. Some support allows them to go out there, and let me just say this, in Mississippi, the Congress has allowed USF to be used by wireless. We're able to have a CDMA system which is a step toward broadband. And we're currently testing in a community the delivery of broadband by wireless. But back to your question, we would get no money unless we had a customer in that area, and then that money we do get we have to put back in the area. Or if in fact we're going to allow competitors to have some support, as long as we're going to have competitors that are getting support, we think this is a good way. Because it allows the—no matter how many you have (competitors) in the area, only those that have customers get money and they don't get a full cost recovery.

Senator DEMINT. Well I want to be on record, supporting, making sure that rural customers have service. But we need to figure out how to stop subsidizing both a sewer line and septic tank in homes in the country and that's what we're doing now. So I yield back.

Senator LOTT [presiding]. Thank you, Senator DeMint. Senator Burns had to go make an introduction, he'll be back in a few minutes. Senator Sununu.

STATEMENT OF HON. JOHN E. SUNUNU, U.S. SENATOR FROM NEW HAMPSHIRE

Senator SUNUNU. Thank you, Mr. Subcommittee Chairman. Well I'm a little disappointed in the makeup of the panel. I very much appreciate all of your work, your commitment to your respective companies or associations. I believe everyone on this panel does good work, tries to do the best with the resources they get from Universal Service. Try to be good regulators, try to be good association members, so I don't criticize your effort. But the fact remains that with the exception of Mr. Scott, you all have a vested interest in the existing system the way it's designed. You have absolutely no interest from what I can discern at making any modifications, any changes from the status quo. You benefit from the protection of the status quo. And there's nothing—it's not your fault. But it's just a fact of the way the system is structured, and what you do. And I just don't think it serves us especially well to only visit with, talk with people who are currently benefiting by the status quo. We're here to talk about the distribution system. And I think it's at least worthwhile to discuss real options for modifying the distribution system in a way that might better accomplish the goals

of this very important program. The fact is what Senator DeMint just described, is full cost recovery, in fact it's more than cost recovery. It's just not accurate to say the new entrant will get cost recovery, but not full cost recovery, what they get is cost recovery of the cost of the incumbent. Which in almost all cases, at least on a moving forward basis, a marginal basis is greater than their cost. Now that's not necessarily good or bad, we can argue that it encourages at least a few additional entrants. But of course we heard that we don't want too many entrants, we don't want too much competition because that undermines the status quo. But it's not rational in my mind to have a system that automatically awards someone the cost of another competitor. That is not necessarily a rational system. More importantly, it's not the hallmark of a fair and efficient system. Senator Lott talked about the importance of this system being fair. It absolutely must be fair. It also should be efficient. And in order to be efficient you have to have, I think, better incentives than we have today. At least overall at the moment, we have a system that discourages competition, it discourages innovation. You have a system where participants specifically design products on the basis of their eligibility to qualify for Universal Service reimbursement; you cannot argue that that's an efficient system. You can't argue that that's doing a good job of encouraging innovation and new technology deployment. And I think overall it really hasn't encouraged the deployment of broadband services, in particular for the reason I just described. It was suggested by a panelist that companies have, or have incentive to install the most efficient networks that they can. This is simply not the case. If you're being reimbursed on a cost basis you don't have any incentive, at least through this system to improve efficiency, because you don't benefit economically through this system by improvements in efficiency. That's the nature of a cost recovery system. And those are the things that I think Senator DeMint and I believe others on both sides of the aisle would like to see improved in Universal Service. Greater incentive for efficiency, greater incentive for deployment of broadband, and refocusing of the program on its essential mission which is serving those in high-cost areas, rural areas, and those with the greatest economic need.

I would—now having said all that, maybe you believe I'm wrong on all those points. But I'll give you a chance to answer a specific question related to the points I made, and that is, is there a specific recommendation that the panel, any of the panelists would like to make to change the system of distribution of Universal Service; we're not talking about adding more money. We're not talking about collecting; we had a hearing, a good hearing, an excellent hearing on methodologies of collection, numbers of connections, or throughput that Mr. Scott was talking about. Let's talk about distribution, that's what we're here for today. Are there any changes that you would recommend for the system of distributing funds? We'll start with Mr. Mao and go right down the list.

Mr. MAO. I'd have to say that the complexities of how the distributions system works are well beyond my expertise. I'm here as an educator, and generally speaking, an end-user of the system itself. So I'd be happy to go back to our folks back at the state who

deal more with how the funds are distributed, and get back to your staff, but I can't do that personally.

Senator SUNUNU. I'll interrupt there, then we'll continue, but I see this as one of the problems. That in representing the education system, you see a bunch of money coming in, which if you're in the education system you're for that. Because it's good. More money coming into the system. Less money that you have to provide locally. And instead of you or those that you represent looking at the system and deciding if this in an efficient allocation of resources in this particular case within the education system, your natural reaction is to defend the status quo. And I think there are many—let us just say very wealthy school districts across America, getting a lot of money from the E-Rate system, and that means less money for those at the lowest end of the economic spectrum, and those in rural areas that have the toughest time getting the services that Senator DeMint described. And I would encourage you to do what you described. Talk to people, have an honest assessment about where this system of distributing funds within your realm of concern is really effective. Yes. Ms. Bloomfield.

Ms. BLOOMFIELD. Thank you. First of all, I'd like to note that I think the ultimate beneficiaries are truly the rural consumers. And the one suggestion I would throw out regarding the Identical Support Rule, which you noted about the multiple ETCs coming in and getting identical support from the incumbent, I think there are a couple of different things that could be looked at. First, I think that competitive ETCs could come in and choose to go through a similar separations process that is ongoing from the incumbent, where you figure out what your regulated and your unregulated costs are and, are reimbursed accordingly, which would get down to the actual costs. Or second, you take a look at creating some type of a tiered wireless proxy model. That is something that will more accurately kind of assess, but maybe be a little bit bureaucratically easier for wireless carriers to figure out what their actual costs might be. And third, there are frankly some competitive ETCs in the Fund who are regional and nationwide carriers, and I think that for the sake of efficiency in the Fund, to take some look at whether those companies should even be in the rural high-cost portion of the Fund, should they be in the non-rural portion of the Fund? Should they be assessed on a different basis to ensure that the funds are targeted very specifically?

Senator SUNUNU. But that last point is a case of defining a particular carrier a particular way, not making any change to the distribution system.

Ms. BLOOMFIELD. I would assume that for the most case, those costs will be lower. And again, you know, the less money you get going out on the distribution side because you're targeting it specifically, I think it creates a more efficient use of the funds.

Senator SUNUNU. And although you believe that ultimately, the purpose of Universal Service is to support the consumer, you oppose any discussion of proposals to give any money to the consumer directly.

Ms. BLOOMFIELD. Again, it goes back to the network. I represent small telephone companies who build networks. I don't know how you build a network. Right now, we're already seeing a huge slow-

down in some of the network deployment that they're doing because of the uncertainty that's out there in the regulatory market. Inter-carrier comping of what? Some of the FCC rulings on Universal Service, those will slow down some of the network supports. So again, yes, I say that you've got to think about building the network.

Senator SUNUNU. Yes?

Mr. HUGHES. Senator, if I understood, that's also what I might call a voucher system where you give the voucher to the consumer?

Senator SUNUNU. Yes.

Mr. HUGHES. Yes. We're in the business of competing for customers. Send our customer the voucher. We're probably the best suited of all of the folks that are out there now to go compete for that voucher. Now, having said that, you know, that'd be a great world as far as us personally, but there has to be something said for maintaining that underlying infrastructure that's used, the wireline. If our goal is to ultimately have reasonably comparable services to those available in the urban areas, a factory coming into town is going to want to see a wireline telephone. He's going to want to be able to pick it up, but he's going to want to be able to use his wireless device, and it may be the one he prefers, it may be the one he uses the most. If we come to a head-to-head fight about it, we think we're in good shape. But I think if our goal is to have that reasonable comparability, we've got to do something to make sure that the underlying wireline infrastructure is there. But vouchers—listen, we compete every day. We have eight—seven—eight competitors out there. That's our business. We're in the competition business. We believe in it. Bring them on.

Senator SUNUNU. Excellent.

Senator BURNS. Senator Snowe.

STATEMENT OF HON. OLYMPIA J. SNOWE, U.S. SENATOR FROM MAINE

Senator SNOWE. Thank you, Mr. Chairman. I want to welcome Mr. Mao here today, who has been a great leader at the Department of Education in Maine, on issues related to education and technology. His statement is illustrative of the value that the E-Rate program has brought to Maine schools as well as schools across this country. As one of the authors of the E-Rate program, along with my colleague, Senator Rockefeller, I am really encouraged and heartened by the value and benefits that it has brought to many schools and classrooms that otherwise would not be able to afford Internet access. Frequently in this debate, we overlook the benefits that have been brought by E-Rate program. I hope that we build upon the status quo and build upon who receives support from the Universal Service Fund. The purpose of the Universal Service Fund was to close the gap in America by ensuring that rural areas, underserved areas and poor areas in America have access to the benefits of telecommunications and technology. This is also the purpose of establishing the E-Rate program for schools and libraries. The success of the program is demonstrated by the fact that when we were re-writing the Telecommunications Act in 1996, only about 14 percent of the classrooms were wired. Today, that level has reached 95 percent. More than $14 billion in funding has

been distributed from the E-Rate program to schools and libraries across this country, and most of the E-Rate funds went to schools where over 50 percent of the students in the district qualify for the National School Lunch Program. This is a real benefit to the low income and the disadvantaged. I hesitate to think where our schools and libraries would be today if we did not have the E-Rate program and the ability to distribute those funds to schools across America so that classrooms can be connected. I doubt that the Federal Government and the Congress would have provided the more than $14 billion for that purpose in any budget. We clearly have underfunded education in many categories, so I doubt that we would have been providing funds in this area. When you look at broadband deployment, we're not even there yet. We rank 16th in the world with respect to broadband deployment. Therefore, connecting our classrooms and schools would probably have been well behind too. Starting from that point, Mr. Mao, I would like to hear from you. What do you think we should do in the future to expand on the E-Rate program in providing technology to classrooms? What do you think we ought to be doing now?

Mr. MAO. Thank you. I think the key for schools and for the E-Rate program is to make sure that the system itself, regardless of the complexities of paperwork and distribution channels and so on and so forth, that the funding maintain itself and is responsive to the growing needs. I think what we've seen in Maine, particularly because of our laptop program, which I think many of you may start to see in some of your states, I know we've been talking to lots of them about this, and they are all looking to try and do something similar, that the need in schools continues to increase. And so, the amount of broadband bandwidth that any particular school may see today is less than what they're going to need tomorrow. And, to speak to something that Senator DeMint mentioned before, that it's important to remember that literacy and numeracy can be addressed by the Federal Government by supporting E-Rate because that connectivity that we provide to our schools is exactly the primary source for all of our rural schools to get to content. Information is the key to education. I think we know that we are in an informational society today, and access to information is where all of the power is, so to speak. And as an educator, you need to have access to information in order to educate your students. And so, by providing that universal broadband access to all of our schools so that they all have the same access on the same playing field, we guarantee that everybody has the same opportunity because you never really know where the next Bill Gates may come from. He could be living in Fort Kent today. And because he has broadband access, he will be able to develop those skills as a student today to become the Bill Gates of tomorrow.

Senator SNOWE. Thank you. Ms. Bloomfield?

Ms. BLOOMFIELD. One of the things that I would say with our rural carriers and their markets is encouraging the partnership. I think that the dialogue—the communities where we've seen the E-Rate being used most effectively is where the local companies are talking to their school districts and working together to ensure that the schools have the technology that they need, and I would just

encourage that continued dialogue and support from the E-Rate program.

Senator SNOWE. Would it be possible to have that kind of support without the E-Rate program? What would happen with our school systems if we didn't have the E-Rate program going forward?

Ms. BLOOMFIELD. Well, I date myself in saying I remember the days without the E-Rate program, and I will tell you that it was very hard for rural carriers because they tried to do a lot of very creative things with their schools. They tried to dedicate dark fiber. They tried to give away the service, which is very hard when you're a regulated industry, because the schools in rural America can't afford some of these programs and access. So, I think the advent of the E-Rate program has really been a boon for these rural communities in terms of creating a system where their schools can go to get these resources. So again, I see the need to continue to educate the school districts about working with their telephone companies to get access to the infrastructure they need to provide these services.

Senator SNOWE. Thank you.

Senator BURNS. I will tell you that the rural telephones and the cooperatives did a great job from the outset of hooking schools together in this type thing before we had E-Rate. They were doing a lot of work. Senator Stevens.

The CHAIRMAN. Thank you very much. You know, I want to get back on the track I was on before. There are now about 150 villages in Alaska that don't have dial-up Internet. They get Internet, but they have to dial long distance, and they get charged for the long-distance call. We don't have cable in most of our state, and many of the rural telephone companies don't offer DSL service. I think that's available by satellite, but it's expensive, and it's not supported by USF. So, I really think we've got to take a look at this from my point of view of what happens to USF and what it covers. I agree to some extent with my friend from New Hampshire. The problem is the costs are stated by the recipient, and there is no leverage as far as keeping down the cost. And Senator Snowe, it applies to schools and libraries and health facilities too. We pay their costs. There's no standard out there for how much cost. There is still the rumor that one school was almost torn down in order that it could be rewired to take Internet, and what we really did was rebuild a school rather than provide access. Now, I think we have to find some way to deal with it. We also have the situation I've tried to cover with Ms. Bloomfield, where you have an existing carrier, and that carrier is probably the older carrier. It's got fixed costs, okay, and it's getting USF now. You have a new carrier that comes in, and it's going to use a different technology, its costs are very low. But you know what it gets from the USF, it gets costs based on the original provider, not the costs based upon its own system. Now, that's what's causing this Fund to be attacked, I think. You know, I hope that we can find some way to create competition and lower prices and meet needs, and we have to call on all of you to get us some suggestions on how to do that, and I would urge you to give us some suggestions. And that's why, Mr. Scott, I'm coming back at you. You've got a think tank about

this. And I think that nonpartisan group, as long as it stays nonpartisan, we'll rely on it a lot.

Senator BURNS. In this town?

The CHAIRMAN. You are a misnomer in this town, but we all look for a real backboard to bounce things off in a way that we don't get a political answer. And I'm not saying you give us political answers because you give answers based upon situations that you deal with yourself. Which we honor, but still, we've got to transcend the broadband. I come back to broadband again now. If we're going to keep up with the world, Alaskans in rural Alaska need broadband. And as a matter of fact, the Federal agencies in Alaska are on broadband. And I do think we have to find some way to get the same to the villages, to people who operate businesses in rural Alaska, just like we would get them to people who operate businesses in rural Mississippi or Tennessee. They get them, but we don't. Now, anyone got any suggestions? How can broadband go into very distant rural service without increasing costs? Anyone know? Mr. Scott?

Mr. SCOTT. Well, I'll take a stab at that one. I think we have to recognize in the Universal Service process that there are different kinds of rural areas. It's a different process to drag a local loop out to a remote ranch than it is to provide broadband to a village that just happens to be 500 miles from the nearest fiber line. And I think we have to be flexible and forward looking in our ability to recognize that technologies like wireless Internet may be the most efficient, least-costly solution to bring the highest quality of service to that area. And if so, we need to be prepared to put USF funds behind that technology. And if the Commission apparently does not——

The CHAIRMAN. We being the Universal Service funds?

Mr. SCOTT. Yes, sir.

The CHAIRMAN. Do you agree with that? The others, that they've mis——

Mr. CLARK. Mr. Chairman, I'll take a stab at it as well, and hopefully this will answer some of Senator Sununu's questions as well, speaking for myself and not necessarily the association. My answer would be to both; we have to change support to networks as opposed to a particular service. And perhaps we do a lot better job of targeting to truly rural areas, and we support say one wireline network, and perhaps one wireless network, but not multiple, multiple competitive carriers and then try to rationalize the distribution so that we end things like the identical support rule. And things like carriers getting reimbursed on every handset that is handed out in a particular family, things like that which would help control the growth of the Fund while continuing to target support to truly rural areas.

The CHAIRMAN. But if broadband's going out there should we support satellite delivery to rural areas with the Universal Service funds?

Mr. CLARK. Mr. Chairman, perhaps if that's the most efficient way of pressing that broadband out to that particular area, it may be.

The CHAIRMAN. That would be my answer too. I would hope that we get to the point where the bill says, the FCC or whoever is ad-

ministering this fund is going to look for the most efficient system available. And as technology develops it's going to have to shift. If it costs less but provides the same service, it's going to have to shift and save the Fund as we go along. Would you agree with that?

Mr. SCOTT. Mr. Chairman I would say yes, if that's the most efficient way.

The CHAIRMAN. Mr. Hughes.

Mr. HUGHES. I think there's a lot to be said. First of all we need to probably—I heard a distinguished Senator the other day say that we ought to be talking about communications. And we ought to be talking about your right to communications. And I thought that was great. We pay people to come up with stuff like that. And here I got it free, and I'd——

The CHAIRMAN. I seem to remember that.

[Laughter.]

Mr. HUGHES. I believe I remember him too. But I would add to that, this Southwest Airline, you're free to move about the country, you have the right to communications and you're free to move about the country. I'm—I think we ought to allow the competitive entities to compete and to limit it to one entity, one wireless, and if it were up to me, you know that would be the greatest thing since sliced bread for my company. But it would not be good for the rural areas there served. There may be some exceptions and it may be that there's—and it may be that only one entity would want to go in somewhere and get that support. But I would urge that the Universal Service Fund remain on a competitive basis and in essence, the competitive LECs are on just about a voucher system. They don't get any money, unless they get a customer. You know they have to have a customer there.

The CHAIRMAN. Well what do you do about the cost situation? You have a current provider and along comes new technology and its cost base is literally less than half the original provider. How do you handle that in terms of being fair about Universal Service?

Mr. HUGHES. That's a good point and it makes you think. And on its face, it's almost a straw man when you think about it though. The current system allows an entity to recover based upon a mark on the ground. And that particular mark has been set in this case as being the cost per line. Now again, you can have as many competitors as you want, it's the number of customers that you get that determines what you have there.

You know clearly you could have cost studies; you could go to these other methods that are proposed. The problem with that is this isn't the last rodeo. This is technology, there are going to be other technologies. So each and every time we do that, we're going to have to have new cost studies, we're going to have to have new methods of determining what is included, new methods of accounting for it. It has taken years to get in place what is in place now. We believe that the—that's something to be said for knowing what's going to happen and to base it upon the incumbent costs given that there is a limited number that you can have in the area, it's capped. There's a cap on the amount of money that can be spent over there, it's not spiraling out. That's another kind of a straw man, it's not spiraling out of sight because of competitive

LECs, it's capped. You've got to have the customer. Yes you could, to answer your question. You could do a cost study for every sort of technology that's out there, and as we get more you could do each one, but one of the problems that people seem to have now with the programs is the complexity. Imagine the complexity if you had eight different technologies, each one of them based on their own cost studies, each one of them based on their own method of determining what's out there, what's to be done. It could become much more of an administrative nightmare.

The CHAIRMAN. Thank you, Mr. Chairman, one last thing, a setup. I've been listening to Senator Sununu, and I think he makes some points. I've been thinking about asking the Committee to put in this bill a sort of random audit of costs, of all recipients of Universal Service funds. Sort of a little GAO if you will, to decide what part of the country to look at, and not auditing everybody, but a random audit to see the fairness of the costs and determine whether or not there is anything we can do to reduce the costs that are so automatically paid by Universal Service funds. We can't audit everybody, but I do think a random audit concept, sometimes, some libraries, this place, schools, and other places, the health facilities, and the providers. Everyone that gets Universal Service funds would know that there's a possibility that someone's going to come knock on your door and say prove those costs, what do you think about that? Mr. Scott, do you think I'm on the right track?

Mr. SCOTT. Yes sir, I think that's a good idea. I think I'd be remiss as a consumer advocate if I didn't say that we need to make sure that the consumer contribution to the Universal Service achieves a commensurate consumer benefit on the other end from the distribution.

The CHAIRMAN. Mr. Hughes, and then I'm finished.

Mr. HUGHES. We certainly want sunshine on that—that's why we file all the reports. We get the money, the USF money; we want the people to know what we do with it. In our particular case we receive Universal Service funds but there has never been a situation since we've been receiving it that we have not exceeded the amount that was spent in that high-cost area, from the USF funds that were received. Our own money is going in there also. So we've got a nickel in the game also, but it—but were it not for the USF fund we could not have expanded. We would not have CDMA service all over the state of Mississippi today; were it not for the Universal Service Fund. Because of it, it makes it something that we can put a pencil to it and make it work.

The CHAIRMAN. Well I'll yield to the Chairman. In the final analysis Senator Burns has been my guru, I went out and visited his place there in Montana. If you haven't visited that laboratory they've got out there to explore how this whole system works you ought to do that. But he and I have talked long and hard, and I think we'll be able to get together here and get a provision in this bill that will assure a continuation of the Universal Service in a way that most people want to see it done. Thank you, Mr. Chairman.

Senator BURNS. Along with that, I think something has to be done along those lines just to protect the integrity of the Fund and that it does what it's designed to do. Mr. Mao, we've heard of

abuses in E-Rate, misuses of money. And we've heard all kinds of stories. From your standpoint is that a problem for E-Rate?

Mr. MAO. I think from a public perception perspective it's always a problem. But I think typical of most programs of any sort; any instances of fraud or abuse are always highlighted and get 50 million times more press than those events where things are working well. Which is why I was so grateful for the opportunity to talk to——

Senator BURNS. It's the same in politics too, I'll guarantee you. [Laughter.]

Mr. MAO. Absolutely. So I think it's important that we continue to make sure that the public and the Members of the Committee, and others are aware of the fact that E-Rate is a successful program for schools. And it has enabled incredible things to occur in schools and to speak to Senator Sununu's discussion about innovation. It is E-Rate that allowed Maine to innovate to a point where we have deployed a one-to-one laptop program that has not only inspired our own teachers and students; but inspired at least six or eight other states to look at that kind of an educational program, as well as the folks at the MIT media lab, to develop new technologies, to build a device for less money, to deploy across the world, and to change the nature of education. So it's exactly that kind of program that created those kinds of innovations.

Senator BURNS. Could we, going back to the conversation I had with Mr. Scott, are there economies of scale and should there be a means test? We have some schools that are very wealthy. And they have a tax base that allows them to do great things. Maybe they don't have a school equalization program like we do in Montana, that sometimes works and sometimes it doesn't. But should we take a look at that in order to make these dollars work in places where we really need the E-Rate?

Mr. MAO. I think that the E-Rate program already does that. Right now funding to schools and libraries is based on populations of free and reduced-income students within your population, within your district. So the system already has those checks and balances built in so that schools that are high-need that do have higher percentages of students who qualify for the Federal free and reduced program, do receive more funding than those districts which are very wealthy and do not have those populations. In which case, those districts sometimes don't even qualify for any dollars. So I think the system does have those checks and balances in place already and I think it does an effective job. I think to speak to economies of scale. Maine is a very rural state, and very dispersed. Maine has done things that helped our schools to organize themselves into what we have with the Maine School and Library Network, where they are able to, as a conglomerate, seek service and create efficiencies to lower costs, because while some may feel that by having a cost-driven system, as some people have characterized it, schools still don't get a free ride. You know none of this is free, so it's always in the school's best interest to reduce the cost of that service because they're still going to be paying for some portion of it. And in a school every dollar makes a difference. So I don't think that the system is anticompetitive in that sense.

Senator BURNS. Well as far as guesstimating and doing things like that, I could remember the 1996 Act, all of us were involved in writing that Act you know, I remember the estimates we had on cell phone usage by the year 2000. We couldn't have been further off. But basically the driving force in 1996 started in about 1990, 1991 whenever we were dealing with the telecommunications industry that new technologies were coming onboard, and we were trying to deal with them with a law, regulatory law, that was written in 1934. And so that had to change, now technologies have a habit of speeding up, accelerating. And here we are back only 10 years later, re-examining that Act and making some changes that reflect the technologies of today and a changing landscape on how we communicate. This has been a very good hearing today, do you have any more questions?

This has been a very good hearing today, all your testimony was very good and it will have an effect on how we write this Universal Service bill I will tell you that, weighing all things. So I appreciate your being very candid with us because it is not easy to write a bill that one size fits all. And our demands in Montana are different than yours in Maine, and in Mississippi, and of course in North Dakota we talk the same language up there. And you are a native of Illinois, Mr. Scott.

Mr. SCOTT. No sir, I grew up in Texas.

Senator BURNS. Did you? And you tell people that and everything?

Mr. SCOTT. I do.

[Laughter.]

Senator BURNS. That's good.

Mr. SCOTT. I claim it.

Senator BURNS. I thought maybe the way you talked would be all right in southern Illinois but I'm not quite sure around Chicago. Senator Stevens.

The CHAIRMAN. But we just want a bill that fits all sizes though right, not one size. But I do want to thank you, and I want to make sure we put in the record all of the statements that you prepared. They'll be in the printed in the record and all the statements of the Members of the Committee that submitted. One or two of them from time to time ask that you respond to a question. We have at least five full committees meeting this morning, so it's possible that some that were not here will want to ask a question, and we would appreciate it if you would respond to them as quickly as you can. We will get around to this bill sometime at the end of the month or earlier next month. But we do thank you very much. Mr. Scott, it's nice to know you're in business; we're going to keep you busy. Thank you very much.

Senator BURNS. We will leave the record open, and like Senator Stevens said there will be some inquiries, if you could respond to the individual Senator and to the Committee it would help us quite a lot. Thank you very much. We're adjourned.

[Whereupon, at 11:49 p.m., the hearing was adjourned.]

APPENDIX

PREPARED STATEMENT OF HON. DANIEL K. INOUYE, U.S. SENATOR FROM HAWAII

If we want to ensure that our citizens have the best communications capabilities and are able to compete in the global economy, we must preserve the sufficiency, stability, and viability of the Universal Service Fund. Since the enactment of the Communications Act of 1934, Congress has long supported the core belief that basic telecommunications services should be available to all Americans at reasonable rates.

Through the Telecommunications Act of 1996, we reaffirmed our commitment to the principle of Universal Service. We ensured that the definition of Universal Service would capture "an evolving level of telecommunications services." We did not want to leave behind rural and low-income areas as technology continued to march ahead.

Additionally, Congress expanded the Universal Service commitment to include schools, libraries, and rural health care providers, as well as other eligible telecommunications carriers. Congress recognized that as telecommunications services reach more and more individuals, all Americans benefit.

On Tuesday, we examined the pressures on the current Universal Service funding mechanism, and today, we consider how best to distribute the Universal Service funds that are collected.

For instance, the 1996 Act expanded the Universal Service Fund to support rural health services. Yet, while this fund is capped at $400 million per year, only $25.57 million was distributed in 2005.

This program has the potential to improve the health of millions of Americans who otherwise would not have access to adequate health care services. In rural and remote states like Hawaii and Alaska, tele-health services have provided significant benefits to people on remote islands and in isolated areas who otherwise would not have access to doctors and specialists. We must take steps to improve the efficacy of this program.

Issues surrounding application of the Antideficiency Act threaten to, once again, disrupt Universal Service funding. We must make certain this does not happen. Congress has twice instituted an exemption to prevent disruptions. It is time we take permanent action. The programs that face the greatest jeopardy include the schools and libraries and rural health funds. We should not risk education and health programs while debating technicalities in Washington.

As we discussed on Tuesday, the current funding mechanism is under increasing pressure as new Internet technologies and bundled wireless and competitive service offerings steadily diminish the funding base. At the same time, total Universal Service disbursements have increased from $1.8 billion in 1997 to $6.5 billion in 2005.

The rapid increase in the size of the Fund coupled with the decline in interstate revenues has prompted the FCC to institute stopgap measures to temporarily stabilize the collection mechanism. Unfortunately, neither the FCC nor Congress has made the difficult choices to ensure the future stability of the collection mechanism.

Finally, we must consider the effect of emerging competition on the Universal Service Fund. In the 1996 Act, Congress plainly sought to further the co-equal goals of preserving Universal Service and fostering local competition. The fulfillment of one goal should not, and need not come at the expense of the other.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JIM DEMINT TO HON. TONY CLARK, SHIRLEY BLOOMFIELD, CARSON HUGHES, AND BEN SCOTT

Question 1. We have seen a great deal of consolidation in the telecommunications marketplace lately, but little, if any, in the rural phone industry. Why do you think that there has been so little consolidation among Rural ILECs? Does the current USF system discourage consolidation, and thereby encourage duplication and inefficient use of Federal monies? Should a subsidy system in the 21st century perpetuate

this unnatural phenomenon, especially in areas where we are seeing more and more inter-platform competition?

Answer from Mr. Scott. The lack of consolidation in the rural telecommunications market results from a variety of factors. There may be some cases where the USF distribution system inhibits natural market acquisitions—because larger carriers are reluctant to take on high-cost areas under price cap regulation. But in other cases, there are social and economic reasons that these carriers remain independent. Many rural LECs are small, family owned businesses. For these people, there are social reasons not to sell. Other rural LECs operate in truly remote areas with very high costs—making them an unattractive prospect to potential buyers.

In the case of service areas that are economically unattractive to major carriers, the subsidy system for small LECs has produced positive results. Many of these small LECs, according to NTCA data, have been more aggressive deploying broadband than their larger counterparts. They have put the higher subsidy levels from rate of return regulation to good use. If a large ILEC were to buy the smaller carrier, the regulations that apply to large ILECS, such as a price cap regime, would then apply. Though this subsidy might be smaller and more efficient in terms of resources spent from the USF, the resulting quality of service in that service area would also likely be lessened.

The question of consolidation may not be relevant to the problem of inefficiencies in USF distributions, especially when we consider inter-platform competition among ETCs. We should carefully explore the manner in which competitive ETCs are subsidized. On the one hand, competition can be a major benefit to rural consumers—bringing new services to the area. ETCs can include both wireless and CLECs, who can ultimately compete head-to-head with the ILEC's for customers. However, this attempt to encourage competition in local markets comes with a trade-off. An increase in competition translates into the need for funds to subsidize the CETC and reimburse the ILEC for its revenue loss. This is because as the ILEC's customer base shrinks in the face of competition, it must recover its fixed costs from fewer lines. This increases the overall per line cost. In turn, this translates into a higher per-line subsidy, which is also available to the ETC competitor (because its subsidy is based on the incumbents cost structure, a practice which should be the subject of considerable scrutiny and reform). Cost calculation and distribution of funds to competitive carriers is the real issue that Congress, the FCC, and state PUCs must investigate to determine how to promote efficient use of funds without relegating rural areas to a substandard quality of service. It's a delicate balance that clearly will require great care to achieve as we move into a broadband environment.

We need a system that deploys subsidies to effectively bring telecommunications services—including broadband—to as many homes as possible. In some cases, this goal may justify changes in CETC and cost calculation processes. In others, the essential services delivered by rural LECs should be maintained and supported at current levels. If there is a different market structure and distribution mechanism that would better achieve this goal, we would support it.

Answer from Ms. Bloomfield. First, we need to clarify that Universal Service funds are *not* Federal monies as you allude in your question. Universal Service is an industry funded mechanism that is administered by the Universal Service Administrative Company (USAC). USAC is an independent, not-for-profit corporation designated as the administrator of the Universal Service Fund by the Federal Communications Commission (FCC). We do not believe that anyone in Congress thinks it is a good idea to take this industry funded mechanism and turn it into a Federal tax-based system.

Second, Universal Service is not a subsidy. It offsets the higher network costs of rural carriers so that Americans living in rural and insular areas can afford to connect to basic communications services. As we all know, the more people connected to the network the more value it has. If Universal Service funds weren't available to maintain and upgrade the networks of South Carolina's high-cost companies, over 650,000 of your constituents would see their phone bills increase by as much as $600.00 per year.

Rural LECs were formed to serve high-cost rural communities that were bypassed by the industry's large carriers that had no economic incentive to serve such markets. Merging two high-cost companies does not create the same types of efficiencies as combining two corporate goliaths. We would like to bring to your attention the excerpt below taken from telecommunications expert and economist, Dale Lehman from his paper titled, *False Premises, False Conclusions: A Response to an Attack on Universal Service,* NTCA White Paper, August 2004.

> A number of considerations make forced consolidation of RLECs bad for rural America. Among these:

- Costs are only half the equation. Quality of service also matters. There is no evidence that consolidation would improve service quality. In fact, the evidence points in the other direction.[1] For example, the evidence shows that the RLECs have deployed state of the art facilities and services to rural areas fairly ubiquitously.[2]
- The same logic that advocates sharing of overhead costs could be applied to sharing of other costs. Universal Service costs could be drastically reduced if rural residents would share their lines, thereby saving on the large outside plant costs of serving sparsely populated regions. In fact, we had such a system—it was called party lines and Universal Service policy was largely responsible for its deserved eradication.
- Community-based rural telephone companies keep jobs in rural areas and promote the national interest in maintaining economically viable rural communities. Managerial positions in these community-based companies are among the best in rural areas. Economic development depends on both physical and human infrastructures.[3] Keeping these skilled jobs in rural areas provides reasons for skilled people to stay or move to this community which, in turn, helps attract businesses that depend on a skilled labor force, thereby creating a virtuous cycle. The U.S. Department of Agriculture reports that the average annual earnings per utilities job was $66,631, more than $20,000 higher than any other job category. While these jobs are relatively small in number (0.5 percent of the nonmetro total), they are among the most skilled jobs in rural areas.[4]
- Consolidation means less local management, less local customer support, and a decreased ability to tailor strategy to each particular rural community. This may make sense in some cases, but should not be forced on all rural areas. Community-based RLECs already merge, acquire, sell their exchanges, and share resources, but these decisions are dictated by local market conditions. It makes no sense to demand that a company share management when there may be no other carriers with which to share. (Border to Border, Scott County, and South Park were created to provide service to areas that were unserved—who would these companies share management with?)

The impetus to consolidate rural service areas is misguided. It will further isolate rural communities, robbing them of access to local educational institutions, vital jobs and expertise, and relegating them to a one-size-fits-all mentality that is bad for rural people and businesses.

The potential savings through consolidation are largely illusory. Larger service areas would result in de facto decreases in Universal Service funding but not because the costs are reduced. Larger service areas simply average out relatively high-cost communities and subscribers with relatively low-cost ones. In the extreme, all USF would disappear if we were to consolidate the entire ILEC industry into a single service area (by definition, this company would have the

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[1] See, for example, D.E. Lehman, *Who Will Serve Rural America?,* NTCA White Paper, July 2000.

[2] OPASTCO's membership survey released May 10, 2004, finds that 88 percent of the responding RLECs' customers have advanced services available to them (with an estimated subscription rate of 12.8 percent). NTCA's 2004 Broadband/Internet Availability Study, released June 29, 2004, finds that 92 percent of the surveyed companies offer broadband services and that these services are available to 74 percent of their customers (with a subscription rate of 10 percent). These numbers compare favorably with the latest FCC data ("High-Speed Services for Internet Access: Status as of December 31, 2003," FCC, issued June 2004) which finds that 93.2 percent of the Zip Codes nationwide have at least one broadband subscriber, but only 73.5 percent of the more sparsely populated zip codes (<6 persons/mi^2) and 82.7 percent of the somewhat more densely populated rural Zip Codes (6–15 persons/mi^2). The FCC and OPASTCO/NTCA data are not directly comparable since the FCC reports Zip Codes where there is at least one broadband subscriber and not how many of the subscribers in those Zip Codes are capable of receiving broadband services. Since the coverage data appears similar in magnitude in all these sources, it is almost surely the case that RLECs have deployed broadband services more widely than their large company counterparts.

[3] The literature on rural economic development is voluminous. One study of particular interest comes from the UK: *Teleworking and Rural Development*, by Huws, Honey, and Morris, Rural Development Commission, 1997. This study investigates the determinants of business and employment location, finding that proximity to other high-tech businesses and labor pools is a prime determinant of where a high-tech firm will decide to locate. The study points to good development potential for rural areas close to urban areas, but is much more pessimistic about isolated rural areas.

[4] USDA, 2001, Nonmetro Jobs and Earnings, [*ers.usda.gov/Emphases/Rural/Gallery/EarningsTable.htm*] A case in point: the Kerrville exchange in Texas was purchased by Valor Telecom. Previous local managerial positions moved to Irving, Texas.

> national average cost of provision). This was largely the situation prior to AT&T's divestiture. Nonrural carriers already have this problem. They are either ineligible to receive USF or receive inadequate support for their highest-cost subscribers due to this averaging effect.[5] [. . .] We should not broaden the scope of this problem by extending such a policy to rural telephone companies. RLECs do not have the urban cores of non-rural carriers that might enable them to "internally average" their support amounts. This is true regardless of whether or not the RLEC is affiliated with a holding company.

However, there is one rule within Universal Service that does discourage RLEC acquisition of RBOC exchanges and it is called the parent-trap rule. The parent-trap rule discourages RLECs from purchasing rural exchanges from RBOCs by limiting Universal Service support to the amount of support received by the RBOC for the same exchange. This is insufficient and far below cost. Because RBOC support is determined by average cost using a proxy model that includes all of their low cost areas, which also happens to be 90 percent of their customers. Policies should encourage rural carriers to purchase these exchanges by allowing them to receive support based upon the costs to provide service for those exchanges.

We do, however, feel that there is one inefficiency in the Universal Service system called the identical support rule. This is where competitive providers receive their support based on the wireline incumbent's costs. Universal Service is a cost-based system and all carriers should receive support based on their own support. If public policy dictates that more than one provider in an area should receive Universal Service support (for example, one wireline and one wireless) then those providers should have to demonstrate their costs. Currently, wireless providers receive support based on the incumbent wireline company's costs creating a windfall of support for the wireless carrier.

An example of how the identical support rule is an inappropriate use of funds is that wireless carriers such as Alltel/Western Wireless, which operate in approximately 19 states, would be considered a non-rural carrier if it were a landline carrier and ineligible to receive rural high-cost support under the current rural high-cost USF support rules. However, due to the identical support rule they qualify and receive report based on the incumbent carrier's cost. The current identical support rule allows not only windfalls for large wireless carries to pad their bottom lines, but also is a major contributor to the waste in the current USF distribution system.

Another inefficiency in the industry not related to Universal Service is that traditional voice telecommunications carriers are still subject to a Federal excise while the remainder of the industry faces nothing like this. Telecommunications carriers should no longer be forced to pay this tax.

Answer from Mr. Hughes. I do not closely follow consolidation transactions among rural ILECs and am not able to put a figure on the number of consolidations among rural ILECs to support or reject the statement that there has been "so little consolidation."[1] I can only reply anecdotally but would suggest that some of the rural ILECs not owned by larger companies may be closely held, co-operatives or family held and the desire to remain owned by those in the area being served (*i.e.,* serving their neighbors, or remaining in the family, or owned by those being served) may be very strong.

In my view, as a general matter, a 21st century Universal Service system should continue to improve upon the 1996 Act. As I understand the Act, it promised deregulatory policies that encourage competition throughout the country and a Universal Service policy that allows competitors to access Universal Service support so they can enter high-cost areas. A Universal Service system should not provide *high-cost support* in *low-cost areas* where inter-platform competition is now present because consumers in such areas can switch to a carrier that can provide high-quality service.

One way to make the high-cost system more efficient is to target support to the areas where it is truly high-cost to serve. Many rural ILECs serve both low-cost and

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[5] The current USF would increase by an order of magnitude if each wire center were designated as the study area. Essentially, companies serving larger study areas provide support for their higher-cost customers by charging more to their lower-cost customers. This is not sustainable in a competitive environment.

[1] In my home state most of the rural area is covered by BellSouth, which has consolidated into its system at least one rural LEC since the Bell divestiture in 1984. In the areas covered by non-Bell entities, some are owned by larger companies such as Alltel, Frontier, and TDS and there has been some consolidation and transfers over the years among the others. I am not familiar with the reason behind each of the ownership changes, nor if the rate of charge in ownership or consolidation has increased or decreased since the current Universal Service system was put in place.

high-cost areas, yet they receive support averaged over the entire area. When a competitive ETC is designated, it may receive Universal Service support when serving in a low-cost area. In 2001, the FCC adopted rules to deal with this problem, allowing rural ILECs to "disaggregate" their support away from their low-cost areas out to their high-cost areas. Disaggregation causes competitors to get no support for networks they may have already constructed in low-cost areas, and the entering competitors are forced to construct in high-cost areas to get support thus furthering the purpose of the USF while reducing cost. It is my understanding that all of the Universal Service support in areas served by the former Bell companies is disaggregated, including BellSouth's areas in my State of Mississippi. We believe that requiring rural ILECs of any real size to disaggregate their support when a competitive ETC enters an area removes any economic incentive to the ETC to focus on the lower-cost areas, thus, help to minimize fund growth and ensures that the highest-cost areas that need investment the most receive it.

Further, where appropriate, a timely move away from providing support based on embedded historical costs to forward-looking costs would also reduce the amounts required for the high-cost areas.

As addressed in our replies to other questions below, all carriers receiving high-cost support must be accountable to regulators to ensure funds are being used for approved purposes. We know it can be done because we are doing it now. Such a requirement will help remove the temptation for waste and abuse that might exist.

Question 2. I would like to turn the focus for a minute on the lack of "performance measures" in the current USF program. It is no secret that effective program management requires the implementation of meaningful performance measures. It is very tempting to equate "accountability" in programs with the mere prevention of "waste, fraud and abuse," no one can hold a program truly accountable without clearly articulated goals and reliable performance data that enable program managers to assess the effectiveness of any program and determine whether changes are needed. What performance measures would you like to see implemented in the USF program?

Answer from Mr. Clark. I believe that a number of strides have been made recently with regard to implementing more meaningful performance standards for eligible telecommunications carriers (ETCs). In March of 2005, the FCC provided states guidance towards implementing stricter ETC certification standards and requirements. Among the suggestions that "tighten-up" the certification process are standards that should help ensure the performance of ETCs. Build-out plans, ability to remain functional in emergency situations, outage reports, and complaint data are all parts of the suggested performance standards. In response to the FCC action, over half the states have already completed them, and are in the process of finalizing ETC rules that are substantially similar to the FCC lead. North Dakota is one of them. I believe the core standards that have been articulated by the FCC address most of the glaring concerns regarding necessary performance standards. While similar performance standards could certainly be spelled out in statute, it would appear that the FCC and states have adequate authority to address these issues as needed under the current construct.

Answer from Mr. Scott. The starting point for USF reform must include more regular auditing and more rigorous accountability. The concept of a mini-GAO for USF, raised in the hearing by Senator Stevens, moves us in the right direction. We also support many of the concepts advanced by the FCC in its 2005 proposed rule making on the *Comprehensive Review of Universal Service Fund Management, Administration, and Oversight (Docket 05–124, ¶ 24–31).*

These include specific measures to determine the outcomes achieved in the application of USF resources in each of the supported programs. Of course, each program will require its own specific measures in order to track progress and calculate efficiency. The Commission outlines different types of measures: outcome, output, and efficiency. Outcome measures would require a model of the intended results of the program. Output measures would take into account the number of households, schools, health clinics, etc., that are served by the USF programs. Efficiency measures would assess whether the program brings the desired outcome to the recipient base using a reasonable expenditure of resources. Naturally, efficiency measures would have to be tied to the strategic policy goal of bringing communications services to households that otherwise would be left behind by the marketplace.

To meet these goals, service providers will have to meet strict reporting requirements on the location of lines, number of subscribers served, and the quality of service provided. The Commission will be able to determine the cost to the program for each recipient, the type of service provided, and the percentage of eligible recipients that take advantage of the program. The Commission will also have to substantially

revise its definition of "broadband" upward to meet a higher standard than 200 kbps.

Answer from Ms. Bloomfield. First, it is important to know that RLECs must justify the use of Universal Service to the State commission as part of the annual certification of eligibility to receive Universal Service funds. This ensures accountability of the high-cost portion of the Universal Service Fund. There are no such reporting requirements in place for competitive eligible communications carriers. Having all carriers who receive Universal Service funds adhere to the same reporting requirements would be a good first step.

If performance measures do become a part of eligibility to receive Universal Service funds, certainly maintaining a high level of quality of service should be the hallmark. Quality of service standards should include: percentage of calls completed, ability to remain functioning during an electric outage, percentage of calls dropped, access to emergency services, and high customer satisfaction.

Should public policy dictate that Universal Service funds may be used to cover broadband, which is essential to fulfill the President's goal of ubiquitous broadband deployment by 2007, certain performance measures should be enacted such as percentage of customers with access to the evolving level of broadband at speeds defined by the FCC.

Answer from Mr. Hughes. All ETCs must be required to demonstrate how the support they receive is being used for the benefit of consumers. As I understand Section 254(e) of the Act, a carrier that receives support is required to use that support only for the provision, maintenance, and upgrading of facilities and services for which the support is intended. In Mississippi, we submit our annual plans and then very specific quarterly reports to the State commission explaining exactly what we are doing with the funds. While we believe quarterly reporting to be somewhat burdensome and reports on a semi-annual or yearly basis would be as meaningful, we are happy to comply if our regulatory authority believes quarterly reports to be in the public interest. All carriers should be required to file similar reports and submit to meaningful audits, upon request, that examine whether funds are being used as required by law. It is not enough for some carriers to simply file reports with the National Exchange Carrier Association that demonstrate that expenditures were made. Reports must explain the specific projects and demonstrate how support is being used to build, maintain, or upgrade facilities within the requirements of the intended uses of USF. The comparison of the use of the funds to the statutorily stated goals would provide a management guide and a tool for regulatory review. The filed reports could provide both cumulative and current period information together with such other information regarding USF usage as the regulatory authority might deem helpful in its evaluation process. Periodic and meaningful audits would complete the picture.

Wireless carriers have come under criticism for not being accountable for their use of Universal Service funds. We believe these suggestions of lack of accountability are not generally founded on fact. I am unaware of any wireless carrier that is not using support properly and know that many members of our WIGs coalition are demonstrating their use of support in a fashion that is much more detailed than that required by wireline carriers.

It is my understanding that there are approximately 400 wireline carriers that operate on an "average schedule" basis for USF purposes, which means they do not report their own costs to get support. I am advised that they receive support through a formula, *irrespective whether they need support, or whether they actually invest the support they receive as required.* I am advised that many, average schedule companies do not file detailed reports similar to those that wireless carriers are required to file in Mississippi. It would seem to be only wise that a meaningful accounting of such use should be filed with an appropriate oversight authority.

Question 3. I have a question about companies operating on rate-of-return regulations. Under current regulations, "Rate-of-return carriers" recoup all of their operating and capital costs, plus a net profit of 11.25 percent from the government. So, this means the more a rate-of-return carrier spends, the more profit they get from the government. This provides a strong *dis*incentive for these carriers to drive down their costs. It seems to me that this regulation provides perverse incentives. Why should we continue with rate of return regulation? Is there a better way?

Answer from Mr. Clark. The concern you have raised with regard to rate of return regulation is valid and is one that is often cited as a drawback to traditional rate regulation, and not just in the context of the telephone industry. Clearly, one of the disadvantages to rate of return regulation generally is that it creates an incentive to over-invest. In response, regulators have looked to other alternative forms of regulation, such as price caps. However, no regulatory construct is perfect. The dis-

advantage of price caps can be an incentive to disinvest in the network, and to cut corners on things like customer service. Frankly, there is no perfect solution. It is a dilemma that has existed from the first days of regulation, and is an outgrowth of the realization that regulation is a second-best option to a competitive market. However, there are situations where a competitive market does not exist, and we are left to cope as best we can with the imperfect tools of regulation. One of the places where a competitive market does not exist is the terminating monopoly. To the extent that intercarrier compensation (access charges) continues to exist there really is no option but to have some form of rate regulation. (It should be noted that access charges are somewhat interrelated with, but not the same as the Federal Universal Fund program.) The best regulators can do in such situations is to try and set clear rules and regulations that, at the very least, prevent gaming the system, and on the balance, leave consumers better off than they would otherwise be with firms that could otherwise exercise market power.

Answer from Mr. Scott. This is an important question, but we should begin considering it with the knowledge that the vast majority of lines nationwide are served by large carriers with price caps. Less than 10 percent of lines are served by carriers operating under rate of return regulations. On the question of incentives and efficiency, the answer has two sides. There are quite likely some rate of return carriers that might better be subject to price caps to improve efficiency. However, there are other rate of return carriers that couldn't deliver service without that level of subsidy. To meet our policy goal of an efficient USF distribution system, we need to account for both.

On the one hand, price caps can promote efficiency. Rate ceilings lead carriers to establish prices below the cap so that they can make profits up to the ceiling. There is doubtless a firm incentive to maximize profit by being more efficient in service provision.

On the other hand, there are real questions about whether small carriers (in very rural areas) can generate the scope and scale necessary to make price caps a workable system for them. Topography may demand long local loops that are unfeasible to build under price caps. The economics of the market may simply determine that a particular LEC is a public interest communications provider. Subjecting them to price caps may undermine their ability to get access to capital at reasonable rates, maintain and upgrade their networks, and attain the long term stability to serve a high-cost area.

There may be an optimal number of lines that would trigger a shift from rate of return regulation to price caps—and the shift to broadband will almost certainly impact this calculation. There may also be a method to determine different levels of price caps using models that take into account the particular local circumstances of a service area. This is a question the FCC should consider very carefully.

Answer from Ms. Bloomfield. First we need to again clarify your misunderstanding in believing that any money for rate-of-return carriers is transferred from the government. The United States Government in no way funds telecommunications carriers whether they are cooperatives or stock companies so they in no way profit from the government.

Additionally, there is zero evidence to prove the worn-out argument that non rate-of-return related companies are any more efficient than those under rate-of-return regulation or that rate of return regulation leads to inflated deployment and cost recovery. The reality is that it is a key element to fulfilling your national policy objective of Universal Service. The rate-of-return operational approach is absolutely essential to the recipe for ensuring high-cost regions of the country are well served. All one needs to do is to compare the services that are available for rural Americans in a high-cost market served by a rural carrier and a non-rural carrier to see the deficiencies that would result if rate-of-return operations were not permitted. Small systems that are dedicated to their communities could never effectively provide quality services under a price cap operational approach. The economies of scale do not exist to do so, and they would be disincented from providing the quality services they are able to under rate-of-return regulation.

With regard to the current "rate" that Federal regulations permit, it is critical to recognize that the rate has been allowed to stand by the FCC in recognition of the significant decrease in intercarrier compensation that has, and will, continue to take place over the proceeding and subsequent months and years.

Answer from Mr. Hughes. In urban markets where more than one high-quality network provides competition, ILEC rates can be deregulated and the market can determine what a carrier can charge. I understand that some states have at least partially deregulated the rates of all but basic local exchange service for the ILEC. Such changes are in fact often touted by ILECs as being the wave of the future.

We at Cellular South believe that, with competition, consumers will receive affordable telephone service without rate regulation and the overall need for Universal Service support will lessen over time as more efficient and competitive networks are constructed.

I do not know whether price cap regulation now in effect for large ILECs can be effectively imposed on small rural ILECs. There are many technical questions surrounding this issue that are beyond my expertise, and better directed toward experts in the field of telephone regulation.

We do support providing Universal Service support to all ILECs based on the forward-looking cost of providing an efficient network. We believe that consumers who pay into the system should not pay more than what is necessary to deliver services efficiently and ensure that rural consumers have choices in services and service providers that are reasonably comparable to that which is available in urban areas.

Question 4. I have a USA TODAY article, from November 17, 2004, which documents that XIT Rural Telephone Cooperative paid each of it's 1,500 ranchers in the Texas Panhandle a $375 dividend—which was more than the mere $206 each rancher paid in local phone fees for the year. In the meantime, XIT took $2.6 million in Federal Universal Service fees that year. How and why did this happen and should this practice be allowed to continue?

Answer from Mr. Scott. This is very troubling example. It demonstrates the danger that carriers will exploit the rate of return regulatory system. It points to the need for greater accountability, performance measures, and enforcement practices to ensure that public subsidies are not used to reap excessive returns.

Answer from Ms. Bloomfield. The allocation of the excess of operating revenues over costs is one of the hallmarks of the cooperative operating model. The concept is integral to the idea that cooperatives are structured for the economic benefit of their members and thus pay capital credits to members in proportion to their participation in the enterprise. Stock companies, on the other hand, pay dividends to their owners on the basis of their contribution to equity. In both cases, the law recognizes that it is legitimate for the company to pay out a portion of its margins (in the case of a cooperative) or dividends (in the case of a stock company) as an incentive to keep the enterprise operational. The criticism of capital credit payouts overlooks this basic fact. Yes, cooperative members receive capital credits, but stockholders in stock companies, large and small alike, that may be receiving research and development funding or other forms of tax credits or Universal Service, etc. also receive economic rewards in the form of dividends or other returns on their investment.

The fact that individual capital credits for any one cooperative in any one year may exceed local rates is purely coincidental and that fact should not undermine the economic structure of a cooperative model that still works in rural areas.

Additionally, capital credits are typically paid on a seven to ten year delay so that in the meantime the cooperative has ready access to reserves in the event of a natural disaster, emergencies such as floods, ice storms, hurricanes, or national security events such as September 11, 2001, when a small community-based provider in South Dakota was called upon to quickly upgrade a remote facility to temporarily accommodate the Vice President of the United States who was being kept out of harm's way.

Answer from Mr. Hughes. The obvious and direct answer is that no wrongful use of Universal Service support should be allowed to continue. I assume that any knowingly wrongful use of Universal Service funds carries appropriate penalties. I have no personal knowledge of the XIT case. It is unclear from the news article whether the payout was a special dividend due to a one-time transaction such as the sale of an asset, or a regular dividend. If it is a regular dividend, with the business generating excess funds for payment to shareholders, then the question should be asked whether those excess revenues are coming from their regulated business that is receiving Universal Service support, or if it is coming from other lines of business. For example, the company may be providing Internet access, video service, or have other revenue streams.

If excess dividends are generated as a result of their regulated business, then this is a problem that could be and should be reviewed under an appropriate system of accountability with timely full reporting requirements. I am advised by counsel that XIT is a company that reports its costs (a Cost Company as opposed to an Average Schedule Company), however I do not know whether the applicable Texas regulatory commission reviews what XIT is doing with USF support it receives in the same way that the Mississippi Public Service Commission reviews our investments before certifying us to receive further USF funds. If XIT is generating excessive profits on its regulated business, then the Texas commission would appear to have a duty to

take appropriate action to correct any abuses of the system they might find upon a review of all of the facts in the case. I assume any irregular use of USF funds would also be addressed at the time of the annual certification to the FCC by the Texas authority.

Question 5. Mr. Hughes, how does rate-of-return regulation affect your company?

Answer from Mr. Hughes. In the vast majority of the area where Cellular South provides service, our ILEC competition is BellSouth. BellSouth is a large ILEC that I understand is now Price Cap regulated by the Mississippi Public Service Commission and other regulatory authorities to the extent its prices/rates are regulated. I understanding that recent legislation will allow further deregulation of its rates. The remaining portion of our service area is served by a number of rural ILECs. We compete in both areas the same way—that is—we focus on investing support, getting consumers, and building our business in the rural ILEC areas just the same as in the BellSouth areas. Our rates are uniform in the rural and urban areas serviced and without regard to how the underlying ILEC is regulated.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. JIM DEMINT TO JEFF MAO

Question. What do you think about requiring performance measures for the E-Rate program? Do you think that would enable the Fund to be fine-tuned to maximize the benefit to learning? Do you think that can be best achieved through the FCC or do you think the E-Rate program could be better administered toward meeting educational goals, as some have suggested, at the Department of Education or elsewhere?

Answer from Mr. Mao. The E-Rate program should have performance measures. It is important to keep these measures focused on the goals of the program, to allow schools and libraries access to advanced telecommunications. Therefore, I think it would be both reasonable and appropriate for the E-Rate program to be measured on its success at assisting schools and libraries access to advanced telecommunications services like broadband services.

Further, it is important to look beyond simple Internet connectivity, but to consider bandwidth needs of the schools and libraries, so that the program can be fine-tuned to ensure that it continues to provide support for the growth and advancement in available and necessary broadband services.

It is also important to recognize how broadband connectivity and the E-Rate program in general support education. Broadband connectivity is one of many critical inputs that schools and libraries need to provide a quality education and services to all learners and patrons. However, it is not one that should be administered by the Department of Education. To do so, would be like asking the Department of Education to administer the roads on which their school buses travel. Broadband connectivity and E-Rate should remain in the realm of the FCC as they are the experts in the field.

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