AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

HEARING TO REVIEW THE ROLE OF BROADBAND ACCESS IN RURAL ECONOMIC DEVELOPMENT

HEARING

BEFORE THE

SUBCOMMITTEE ON RURAL DEVELOPMENT, RESEARCH, BIOTECHNOLOGY, AND FOREIGN AGRICULTURE

OF THE

COMMITTEE ON AGRICULTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED TWELFTH CONGRESS

FIRST SESSION

SEPTEMBER 24, 2011, SPRINGFIELD, IL

Serial No. 112–24

Printed for the use of the Committee on Agriculture
agriculture.house.gov

U.S. GOVERNMENT PRINTING OFFICE

70–638 PDF WASHINGTON : 2011

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON AGRICULTURE

FRANK D. LUCAS, Oklahoma, *Chairman*

BOB GOODLATTE, Virginia, *Vice Chairman*
TIMOTHY V. JOHNSON, Illinois
STEVE KING, Iowa
RANDY NEUGEBAUER, Texas
K. MICHAEL CONAWAY, Texas
JEFF FORTENBERRY, Nebraska
JEAN SCHMIDT, Ohio
GLENN THOMPSON, Pennsylvania
THOMAS J. ROONEY, Florida
MARLIN A. STUTZMAN, Indiana
BOB GIBBS, Ohio
AUSTIN SCOTT, Georgia
SCOTT R. TIPTON, Colorado
STEVE SOUTHERLAND II, Florida
ERIC A. "RICK" CRAWFORD, Arkansas
MARTHA ROBY, Alabama
TIM HUELSKAMP, Kansas
SCOTT DESJARLAIS, Tennessee
RENEE L. ELLMERS, North Carolina
CHRISTOPHER P. GIBSON, New York
RANDY HULTGREN, Illinois
VICKY HARTZLER, Missouri
ROBERT T. SCHILLING, Illinois
REID J. RIBBLE, Wisconsin
KRISTI L. NOEM, South Dakota

COLLIN C. PETERSON, Minnesota, *Ranking Minority Member*
TIM HOLDEN, Pennsylvania
MIKE MCINTYRE, North Carolina
LEONARD L. BOSWELL, Iowa
JOE BACA, California
DENNIS A. CARDOZA, California
DAVID SCOTT, Georgia
HENRY CUELLAR, Texas
JIM COSTA, California
TIMOTHY J. WALZ, Minnesota
KURT SCHRADER, Oregon
LARRY KISSELL, North Carolina
WILLIAM L. OWENS, New York
CHELLIE PINGREE, Maine
JOE COURTNEY, Connecticut
PETER WELCH, Vermont
MARCIA L. FUDGE, Ohio
GREGORIO KILILI CAMACHO SABLAN, Northern Mariana Islands
TERRI A. SEWELL, Alabama
JAMES P. MCGOVERN, Massachusetts

PROFESSIONAL STAFF

NICOLE SCOTT, *Staff Director*
KEVIN J. KRAMP, *Chief Counsel*
TAMARA HINTON, *Communications Director*
ROBERT L. LAREW, *Minority Staff Director*

SUBCOMMITTEE ON RURAL DEVELOPMENT, RESEARCH, BIOTECHNOLOGY, AND FOREIGN AGRICULTURE

TIMOTHY V. JOHNSON, Illinois, *Chairman*

GLENN THOMPSON, Pennsylvania
MARLIN A. STUTZMAN, Indiana
AUSTIN SCOTT, Georgia
RANDY HULTGREN, Illinois
VICKY HARTZLER, Missouri
ROBERT T. SCHILLING, Illinois

JIM COSTA, California, *Ranking Minority Member*
HENRY CUELLAR, Texas
PETER WELCH, Vermont
TERRI A. SEWELL, Alabama
LARRY KISSELL, North Carolina

MIKE DUNLAP, *Subcommittee Staff Director*

CONTENTS

	Page
Costa, Hon. Jim, a Representative in Congress from California, opening statement	5
Johnson, Hon. Timothy V., a Representative in Congress from Illinois, opening statement	1
Prepared statement	4
Schilling, Hon. Robert T., a Representative in Congress from Illinois, opening statement	8

WITNESSES

Schroeder, Raymond E., Professor Emeritus and Director of Online Affairs, Center for Online Learning, Research, and Service, University of Illinois at Springfield, Springfield, IL	9
Prepared statement	11
Bartlett, P.E., Jay C., President and Chief Executive Officer, Prairie Power, Inc., Jacksonville, IL	14
Prepared statement	16
Campbell, Sue, Chief Executive Officer, Community Memorial Hospital, Staunton Hospital, Staunton, IL	20
Prepared statement	21
Crum, Jim, beef producer, U.S. Wellness Meats, Virginia, IL	23
Prepared statement	24
Fowler, Lester D., Legislative and Government Affairs Manager, McDonough Telephone Cooperative, Colchester, IL; on behalf of National Telecommunications Cooperative Association	26
Prepard statement	27

SUBMITTED MATERIAL

Clark, Drew, Executive Director, Partnership for a Connected Illinois, submitted statement	45
Illinois Farm Bureau, submitted statement	47

HEARING TO REVIEW THE ROLE OF BROADBAND ACCESS IN RURAL ECONOMIC DEVELOPMENT

SATURDAY, SEPTEMBER 24, 2011

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON RURAL DEVELOPMENT, RESEARCH,
BIOTECHNOLOGY, AND FOREIGN AGRICULTURE,
COMMITTEE ON AGRICULTURE,
Springfield, IL

The Subcommittee met, pursuant to call, at 12:19 p.m., at the University of Illinois-Springfield Public Affairs Conference Center, One University Plaza, Room C–D, Springfield, Illinois 62703, Hon. Timothy V. Johnson [Chairman of the Subcommittee] presiding.

Members present: Representatives Johnson, Thompson, Hultgren, Schilling, Costa, and Kissell.

Staff present: Mike Dunlap, Mary Nowak, Lauren Sturgeon, Andy Baker, and John Konya

OPENING STATEMENT OF HON. TIMOTHY V. JOHNSON, A REPRESENTATIVE IN CONGRESS FROM ILLINOIS

The CHAIRMAN. The hearing to review the role of broadband access for rural economic development will come to order.

I assume most of you know, I'm Congressman Tim Johnson. I am privileged to serve as the chair of this Subcommittee. And I want to introduce my colleagues, but I also want to make a couple of contemporaneous remarks before we actually start the hearing.

To my right is Mr. Jim Costa from California, who is the Ranking Member of the Subcommittee. And I must say this is not anything other than just factual. We are effectively co-chairmen. Congressman Costa is extraordinary in terms of his service not only to his district, but to agriculture around the country. This is a privilege for him to be here with us. And I am just honored, Jim, Congressman Costa, that you are able to be with us.

Mr. COSTA. Thank you.

The CHAIRMAN. To my left is my good friend, Congressman Glenn Thompson from Pennsylvania, also a distinguished Member of the Committee. To his left is my colleague from Illinois on the Subcommittee and the full Committee, Congressman Bobby Schilling. And to our far right, my colleague, Congressman Larry Kissell from North Carolina.

Congressman Hultgren, who is also from Illinois will be here relatively shortly, but is a running a bit behind his schedule. And so, we are going to proceed.

Before I actually get to the reason we are here, I just want to tell you, these individuals with whom I am sitting are just an extraordinary group of people. This Subcommittee epitomizes what America wants, and that is bipartisanship, cooperation, civility, cooperation in an era when that is all too lacking.

[Applause.]

The CHAIRMAN. In the nearly year that this Subcommittee has been in existence, Congressman Costa and I, Congressman Kissell, Thompson, Schilling, we have never had one conflict on any major or minor point. Our ability to deal with things, and I give credit to my colleagues more than I frankly, it is really extraordinary. And, again, in an era when you see everything contentious, everything partisan, everything divided, these gentlemen serve as the total contrast. Our ability to deal with issues, our ability to get through the agenda is in no small part due to the fact that Jim Costa, my co-Chairman, as well as Larry Kissell, Glenn Thompson, and Bobby Schilling, represent that spirit. And I am just grateful for what you are able to do and what you do for your districts.

And I will say this: I think all of us up here, with the possible exception of Congressman Costa, may or may not have contentious elections this year. I would be unequivocal in my saying that these individuals are extraordinary public servants. And I am not going to get into the election process. I will simply say they are good to serve with, good people. They serve the country well, and they serve their constituents well.

So, with those introductory remarks, let me recognize Ranking Member Costa. And I have already recognized Representatives Thompson, Kissell, Hultgren, and Schilling. And the chair would request, and I am going to make an opening statement, too, if the other Members would submit their opening statements for the record so that the witnesses can begin their testimony and ensure there is ample time for questions.

I do have a brief opening statement to make, and Congressman Costa will have a similar statement to make. So, let me start.

Good afternoon, and welcome to this beautiful University of Illinois-Springfield campus. And let me also extend my appreciation to the chancellor, the administration here at the university. They have been wonderful hosts. We are very, very grateful for this great university and your willingness to host us here today.

For this hearing to review rural broadband access and economic development, we are delighted to have an opportunity to hear directly from businesses and institutions from this region who are doing the hard work of building and serving our rural economy.

This Subcommittee oversees several areas which are important to small towns across America. In addition to providing oversight on rural development issues which we will be discussing today, we pay careful attention to issues of research, biotech, and trade promotion. Along with the private sector, investments through our land-grant colleges and universities help to spur innovation in agricultural technologies to keep our farmers and ranchers competitive in a global market. And in those markets, we work with our exporters to overcome unfair trade barriers to high quality American products.

Today we are taking a close look at broadband access and how economic development can be sustained and accelerated through connecting rural communities with information, services, and markets. Through the discussion today, we hope to gain a better understanding of whether infrastructure programs are effective in reaching the most remote areas as a lender of last resort.

Through our hearings this year, we have to work to identify opportunities to streamline programs and application processes, and identify where scarce Federal resources should be deployed.

The Internet is supposed to be a great equalizer to break down the traditional barriers of distance. We can narrow the gap between urban areas, like Springfield, and rural areas like Calhoun County and Moultrie County when it comes to access to jobs, education, and markets. That is why rural broadband access is so important; it drives economic growth.

Another purpose for today's hearing is to highlight the demographic and economic challenges that face rural America. Just here in Illinois, as evidenced by the loss of a Congressional seat, Illinois lost nearly 3.5 percent of its population. According to the 2010 Census, a large number of counties in Illinois, particularly rural counties, declined in population. The loss of population could be attributed to the lack of opportunity, particularly economic opportunity. Illinois is plagued with unemployment higher than the national average. Most striking, when one reviews unemployment county by county, you will notice that rural counties, such as nearby Montgomery County or Vermillion County over in the eastern part of the state, vary between 11.5 and 10 percent, respectively.

Economic opportunity is linked to a variety of factors, whether that is the onerous regulations from the EPA, Department of Labor, USDA, or FDA that stifle entrepreneurship, or the lack of access to quality jobs, quality health care, technical skills training, or education to meet 21st century demands. Regardless of the driving factors, rural America is struggling. Schools are consolidating, corner grocery and hardware stores are closing their doors, and post offices could be closed in the near future.

Our witnesses today will provide testimony on how access to rural broadband provides opportunities in rural health care, rural education, and market access.

I am especially pleased that we have such a distinguished panel of witnesses with us here today. Each of our witnesses is here to provide a unique perspective on the rural economy and how they are meeting the challenges faced by every small town in America. They are broadband providers and users whose organizations provide health and education services, food, and, of course, access to high speed networks.

I would like to thank each one of you for taking the time to prepare your testimony today and traveling from all over the state to be with us. We welcome you and look forward to your comments.

Before I turn to the Ranking Member for his opening statement, let me say two things:

First of all, we have a wonderful Majority and Minority staff. Mr. Costa works with them; we all do here. Mike Dunlap has been just extraordinary, together with my staff. Sam Pfister from Rochester, Illinois, and Kevin Johnson are just doing an extraordinary job for

us. And the staffs have been wonderful. We appreciate you ladies and gentlemen for your helping us.

I would also say just as a backdrop, and Mr. Costa will elaborate on this and the witnesses will as well. We are focusing today on broadband services, but the bigger issue to all of us at this table who represent predominantly rural areas, or at least significant rural areas, is arresting the decline in rural America. We want to do what we can to marry, so to speak, the public and private sector together so that rural America can realize its potential to rebound, because when rural America declines, America declines. And we have to make sure that we address that issue in the most four square way we can. I think all of us at the table are committed to that.

[The prepared statement of Mr. Johnson follows:]

PREPARED STATEMENT OF HON. TIMOTHY V. JOHNSON, A REPRESENTATIVE IN CONGRESS FROM ILLINOIS

Good afternoon and welcome to the beautiful University of Illinois Springfield campus for this hearing to review rural broadband access and economic development. We are delighted to have an opportunity to hear directly from businesses and institutions from this region that are doing the hard work of building and serving our rural economy.

This Subcommittee oversees several areas which are important to small towns across America. In addition to providing oversight on rural development issues we will be discussing today, we pay careful attention to issues in research, biotechnology, and trade promotion. Along with the private sector, investments through our land-grant colleges and universities help to spur innovation in agricultural technologies to keep our farmers and ranchers competitive in a global market. And in those markets, we work with our exporters to overcome unfair trade barriers to high-quality American products.

Today we are taking a close look at broadband access and how economic development can be sustained and accelerated through connecting rural communities with information, services, and markets. Through the discussion today, we hope to gain a better understanding of whether infrastructure programs are effective in reaching the most remote areas as a lender of last resort. Throughout our hearings this year we have been working to identify opportunities to streamline programs and application processes, and identify where scarce Federal funds should be deployed.

The Internet is supposed to be a great equalizer—it can break down the traditional barriers of distance. It can narrow the gap between urban areas like Springfield and rural areas like Moultrie County when it comes to access to jobs, education, and markets. That's why rural broadband access is so important—it drives economic growth.

Another purpose for today's hearing is to highlight the demographic and economic challenges that face rural America. Just here in Illinois, as evidenced by the loss of a Congressional seat, Illinois lost nearly 3.5% percent of its population. According to the 2010 Census a large number of counties in Illinois, particularly rural counties, declined in population.

The loss of population can be attributed to the lack of opportunity, particularly, economic opportunity. Illinois is plagued with unemployment higher than the national average of 9.2%. Most strikingly, when one reviews unemployment county by county you notice that rural counties such as nearby Montgomery County and Vermillion County between 11.5% and 10.3%, respectively.

Economic opportunity is linked to a variety of factors. Whether that is onerous regulations from the EPA, Department of Labor, USDA, or FDA that stifle entrepreneurship or the lack of access to quality jobs, quality healthcare, technical skills training, or education to meet 21st century demand. Regardless of the driving factors, rural America is struggling: schools are consolidating, corner grocers and hardware stores are closing their doors, and post offices could be closed in the near future. Our witnesses today will provide testimony on how access to rural broadband provides opportunities in rural healthcare, rural education, market access.

I am especially pleased that we have such a distinguished panel of witnesses with us here today. Each of our witnesses is here to provide a unique perspective on the rural economy, and how they are meeting the challenges faced by every small town

in America. With us are broadband providers and users whose organizations provide health and education services, food, and of course access to high-speed networks. I would like to thank each of you for taking the time to prepare your testimony today, and for traveling from all over Illinois to be with us.

Welcome and we look forward to your comments.

The CHAIRMAN. So, with those remarks—probably too long—I turn to my distinguished colleague, the Ranking Member of the Subcommittee and my very, very good friend, Mr. Jim Costa?

OPENING STATEMENT OF HON. JIM COSTA, A REPRESENTATIVE IN CONGRESS FROM CALIFORNIA

Mr. COSTA. Thank you very much, Mr. Chairman, for inviting us to be here today in America's heartland. I think I can speak for Congressman Kissell and Congressman Thompson, we are just pleased to be in the Chairman's district and Mr. Schilling's district. I understand we are kind of in both of your areas here.

But as I was flying over this beautiful part of our country yesterday afternoon, on the approach to the landing here at Springfield, seeing all the farmland, seeing the rural communities from which I come from as well in California, realizing that so much of what really is America, not only today, but historically, is part and parcel of this wonderful part of rural America that we have in every State in the Union. Sometimes, not here with this panel, of course, because we all represent various parts of rural America, but it is sometimes forgotten in the urban-centric districts in which our colleagues represent. And we have to continue to remind them that, not just of the incredible history, but our ability to produce food and fiber and to provide an ability in the 21st century on how the economies of scale in rural America apply to the success of getting out of this terrible recession that we have been in, a solid, sound economic recovery.

And so, I am glad, Mr. Chairman, that you have taken the time to bring the Subcommittee here to the heartland of America to really talk and advocate not only on behalf of rural America, but the challenges we face, to focus on broadband and the interconnectivity that is so critical to the future success of rural America, as we consider changes in the 2012 Farm Bill that we will be dealing with, as it relates to the Subcommittee's focus, which is rural development, research, biotechnology, and foreign agriculture.

So, this public hearing today on the role of broadband access has in the rural economic development is fitting, timely, and appropriate for us to hear from our witnesses and from the larger participation that is reflected in this room throughout the great State of Illinois. So, I really appreciate that.

Before I read my statement, let me also say that I am compelled to underline the comments that Chairman Johnson has made, my friend, about the bipartisan cooperation on this Subcommittee. Having come from a tradition of bipartisan cooperation in the 1980s and the 1990s and the California Legislature, it is one of the great frustrations that Members of this Subcommittee daily feel in Washington. I mean, at the end of the day, what binds us together as a nation, and I was reminded of that this morning entering the Lincoln Library and visiting his home, is far greater—far greater as a nation than whatever disagreements or divisions we may have.

And so, the spirit of bipartisanship that is exhibited in this Subcommittee I hope will continue so we can expand it to some of our colleagues who seem to forget that sometimes.

But it is great to be in the Land of Lincoln.

Let me begin, Mr. Chairman, by saying that both Congressman Thompson and I did have a chance to visit the Lincoln Presidential Library. And I do not have to tell you folks because you are from the Land of Lincoln, that President Lincoln was the first President really to truly embrace the benefits of the power of telecommunications through the telegraph, relying heavily on that new technology. Just as we look at broadband and the Internet today, the telegraph was the state of the art way in which they were able to communicate and deal with all the challenges and difficulties of the Civil War. And he understood that.

You know, I was quickly going through a lot of the different exhibits and seeing the attacks that he faced, and the criticisms that he dealt with. But you talk about boldness, you talk about vision. Besides being a log splitter and being born in a log cabin, in the 1850s, and you can see it from the home that he lived in, which was truly an upper middle class home, he was a counsel not only on the circuit, but the Central Illinois Railroad. He tried a very important case in the United States Supreme Court.

And in the middle of perhaps the most divisive time in our nation's history, the Civil War, when the fabric of our country was being torn apart, when we had rapid inflation, deficits to the max, and the printing of paper money—does that economic crisis sound familiar? He said we are going to build a railroad across the nation in 1862. I mean, talk about boldness. Talk about vision.

So, it is fitting that we are here today as we talk about expanding our nation's telecommunications network. More importantly, how to harness the power of the broadband technology to realize not only the potential of all America, but rural America.

I look forward to hearing from our broadband providers today on the panel regarding the Federal program, but more importantly, the private sector participation and how we can apply parts of that private sector participation to the areas of rural America that still lack broadband access.

I am particularly interested in hearing the broadband users on the panel talk about how they are utilizing it to connect rural America with the global economy because clearly we are a global economy.

Whether it is here in Illinois, or in my home State of California, or any of the areas that my colleagues, that we represent across our great nation, the importance of rural broadband is critical to all of our districts.

Let me give you a few examples. We are going to hear the Illinois snapshot here in a moment. But you think of California, which has 38 million people, the most populous state in the nation. It is the home of Silicon Valley. They do not obviously have any problems with broadband in rural California. Not.

According to the 2008 report by the California Broadband Task Force, California, while we lead in broadband penetration at 96 percent, but it is misleading; 1.4 million rural Californians lack access to broadband, and barely ½ the state's residents—½ the

state's residents out of 38 million—do not have broadband access at home.

For those households that have an annual income of less than $25,000 a year, and I represent a significant portion of them, an economically poorer district in the country, the situation is even bleaker, with less than ¼ of the households subscribing to broadband, if you make $25,000 or less a year, which, if you think about it, probably is logical.

What this shows me is that despite the relative success in putting wires in the ground by the private sector participating with both our state and Federal Government, broadband providers and public institutions together, and that is the private partnership that Mr. Johnson was talking about in his opening statement, we still have a lot of work today in terms of bridging the divide between the haves and the have nots, especially in rural America.

One of the challenges in my district and here in Chairman Johnson's district is the limitations that various definitions of *rural* that are placed under the United States Department of Agriculture's definition of what rural development programs mean. I think all of us share that frustration. We have had a couple of Subcommittee hearings on it, and I think I know what rural means, but it certainly does not apply to the definition under today's law. And we need to change that, whether it is looking at Census tracts or doing some other modifications.

So, Chairman Johnson and I are continuing to pressure the USDA to provide a report to Congress that was required in the 2008 Farm Bill on various definitions and recommendations on how the agency can provide more flexibility in administering the rural development programs, while still ensuring they are working for the benefit of rural America.

I will tell you, folks, that you are well represented by Congressman Tim Johnson. He was relentless and tenacious in our last Subcommittee hearing on telling the USDA that the time is now. And as a result of that testimony, we can finally get the reports provided to us here in the next month.

I look forward to hearing from our witnesses today on how they believe, who can better tell us how we can harness the power of broadband, not only in Illinois, but throughout rural America, and how the United States Department of Agriculture's broadband programs might be better able to suit our needs.

So, once again thank you, Chairman Johnson, my friend Tim, for calling this hearing. It is great to be in an area that you always talk to me about, about the wonderful part of Illinois that you have the honor and privilege to represent. It is wonderful. It is great to be here today in the home of Lincoln. Thank you.

The CHAIRMAN. Thank you, Mr. Co-Chairman. And I also want to thank, again, Mr. Kissell, Mr. Thompson, Mr. Schilling who will play an active role in the hearing today. And they make, together with our other Members of the Subcommittee, they make this Subcommittee work. And I would argue that our Subcommittee is as proactive, as active—Mike Dunlap and the Democratic staff as well do an extraordinary job in making sure that we are unified in our effort to represent our interests and represent rural America.

I also want to acknowledge my good friend, Colleen Callahan, who is the state director of the United States Department of Agriculture and Rural Development. She is with us here today, and we appreciate you being here, Colleen.

[Applause.]

The CHAIRMAN. And also, Chancellor Koch at the University of Illinois-Springfield.

Now, let me just pay a special appreciation, not only to this university, but to the City of Springfield. They have been extraordinary in their receptiveness in putting this together today. Matter of fact, when we finish with our various matters, I am going to go down to the Route 66 Festival, advertisement for Springfield. The Isles Park development—or not development, neighborhood party. And I will be in Springfield all day spending my money and giving my tax dollars. And I am really looking forward to my full day in Springfield.

Mr. COSTA. I saw it last night when I was downtown. I highly recommend it for all of you.

The CHAIRMAN. I want to introduce our panel real quickly and then we will go on.

The first member of the panel, and we will recognize you in order from right to left, is Mr. Ray Schroeder who I have known for, at least indirectly, for about 40 years. Director of Online Affairs, Center for Online Learning, Research, and Service, University of Illinois at Springfield. Mr. Jay Bartlett, who is the President and CEO of Prairie Power in Jacksonville, Illinois. Going quickly in between to the last two, for Mr. Schilling to introduce, Mr. Jim Crum, beef producer, U.S. Wellness Meats, Virginia, Illinois. And Mr. Schilling and I arm wrestled over who got to introduce Sue Campbell, but since he is currently representing her, and I am going to be, he won the arm wrestling contest. So, I am going to let Mr. Schilling introduce the other two witnesses, and then we will get on with the testimony. Mr. Schilling?

OPENING STATEMENT OF HON. ROBERT T. SCHILLING, A REPRESENTATIVE IN CONGRESS FROM ILLINOIS

Mr. SHILLING. Thank you, Mr. Chairman.

I would like to give a warm welcome to Sue Campbell. She serves as the CEO of Community Memorial Hospital in Staunton, Illinois. Community Memorial is a critical access care facility. Sue has more than 25 years of health care management and more than 10 years of management experience in the hospital setting. And it is an honor. She came out and visited our office back in January, and we just kind of hit it off. She is a great person. Glad to have you here.

And then next, I would like to introduce Mr. Les Fowler. Les recently introduced me at one of their main functions, so it is only proper that I get to introduce him.

You know, he is the Legislative and Government Affairs Manager for McDonough Telephone Cooperative located in Colchester, Illinois, which is right by Macomb. He calls it the land of milk and honey, whatever that means.

But I probably represent both of these areas. Les has been with McDonough for the past year. I have had several opportunities to

meet with him. He does great work at McDonough to connect rural Illinois together. It is just great to be here with the panel.

And I would like to thank my colleagues. Welcome to Illinois. And it is an honor to have this hearing here today. So, thank you, Chairman.

The CHAIRMAN. We will proceed with the testimony, but I also want to point out to the audience, the media, and otherwise, that this is an extraordinary privilege having a House Committee field hearing. These aren't very often held around the country. This is an unusual thing, and we are really, really fortunate to have this field hearing in this great community. And this would not have happened without great staff, without Larry, and Jim, and G.T., and Bobby. And we are blessed and honored to have this hearing here today.

So, with those introductory remarks, let me just call on—in Washington we have a clock that ticks down. It is like the end of a basketball game. Do not worry about that. We are just honored to have you. And we will first hear from Mr. Ray Schroeder, and look forward to your testimony.

STATEMENT OF RAYMOND E. SCHROEDER, PROFESSOR EMERITUS AND DIRECTOR OF ONLINE AFFAIRS, CENTER FOR ONLINE LEARNING, RESEARCH, AND SERVICE, UNIVERSITY OF ILLINOIS AT SPRINGFIELD, SPRINGFIELD, IL

Mr. SCHROEDER. Thank you very much. Mr. Chairman, Members of the Committee, my name is Ray Schroeder, and I truly am honored to be able to speak with you today.

I am a Professor Emeritus and Director of the Center for Online Learning, Research, and Service here at the University of Illinois-Springfield. I have been engaged in online teaching for the past 15 years. I founded the Office of Technology-Enhanced Learning in 1997, which more recently was expanded in our services to include the three missions of faculty members of teaching, research, and service.

I have been honored to receive national recognition in a number of ways, including recently the Frank Mayadas Leadership Award from the Sloan Consortium. I have worked for 34 years on this campus and another half dozen over in Urbana.

Among our three campuses, the University of Illinois offers more than 100 online degree and certificate programs. From the Springfield campus alone, this semester we serve 1,425 students enrolled in 17 online degree programs and multiple certificate programs. These students are located in 77 of the Illinois counties, 49 states, and 12 countries. The average age of our online student is 34, and they are, for the most part, early and mid-career professionals seeking to complete degrees and certificates to enhance their careers and their understanding of how this rapidly changing technological economic, social, and political environment impacts their lives.

Our online programs are noted nationally for excellence in online teaching and learning, student engagement, and success of our graduates.

The Sloan Consortium is the leading national association dedicated to quality in online teaching and learning. They reported more than 4.5 million U.S. students took at least one online class in 2009. And the estimates are that the new report to come out in November will show that we have far exceeded six million students; that represents more than 30 percent of the 20 million students enrolled in post-secondary education in the U.S.

Access to online learning in the U.S. is provided in most cases for those with disabilities, for those in urban and suburban areas, those with non-traditional work schedules, those who cannot travel to campus. But online learning is not provided to all Americans. Many of the Americans who reside and work in rural areas of our country are disenfranchised from this 21st century delivery mode because they are not served by affordable and reliable broadband connectivity, which is required now to fully participate in online learning.

I teach online every semester. Among the courses I have developed and currently teach is one titled, *Internet in American Life,* for which I am the lead instructor of five section, which we are offering this fall. As you might suspect, the readings for our course come from the Pew Charitable Trust, which has an ongoing series of surveys of the same name.

As part of the course for the past several years, we complete a module on broadband access in the United States. We look at rural, suburban and urban areas. The research, it remains consistent with our student reports, they say that broadband stimulates learning, economic development, and opportunity, and a lack of this is detrimental to the schools and the businesses, both small and large.

From this class, I can report anecdotally as recently as last week that among our students residing in rural locales, there is great frustration with having to pay nearly $100 a month for less than reliable service delivered via satellite, and capped at a transfer rate of fewer of 1 gigabyte or a handful of gigabytes a month.

The impact of this is huge. Parents who have subscribed to these services fear exceeding the limits because their bills will skyrocket, and so they restrict Internet access to their children who are students who are required to use the Internet for their school work. It is far different in urban areas of this country where smart phones and 4G connectivity allows students to just walk down the street and have access, or around the corner to a fast food store for free Internet access, or a coffee shop. Not so in the rural areas of this country.

I would like to briefly relate the experience of my younger daughter, a graduate of UIS, who founded a small business in a rural area in between Cobden and Makanda, Illinois. That is in the far southern part of the state, Shawnee National Forest area. The business, called InBlue, specializes in leather bound journals, iPad cases—here is an example—with ink drawings, *et cetera*. Well, this small business began as a storefront on the boardwalk in Makanda, Illinois, a town of about 450, maybe 500 people. It really was a dad funded business. The success came when she moved to a community, Carbondale, and later to Asheville, North Carolina, where she now has broadband service.

More than 90 percent of her sales are made online. She credits her success to access to broadband that allows her to reliably connect to clients who now span the globe from U.S. cities to regular clients in Amsterdam, London, Sidney, Abu Dhabi, points around the world. This thriving small business employs several staff members. It utilizes American-made goods, leather from the U.S., ink from the U.S., thread from the United States. And she is creating a positive cash flow across the Atlantic to the United States from these international buyers and from larger cities to smaller rural communities where she has lived.

Imagine how many such business in rural areas fail or fail to launch simply because we lack the access in those parts of the country, access to broadband Internet that is taken for granted in the more rural or, rather, the more urban areas of the United States.

Speaking as an individual with some expertise in this area, I personally believe that the solution is in a fabric that can be woven among multiple technologies. I do not believe there is one single technological solution. I believe it is a fabric of 3G, 4G services, support for telephone, power companies, cable companies, other rural entrepreneurials to expand their services, expanded use microwave frequencies, the old Instructional Television Fixed Service, ITFS, spectrum, perhaps even super WiFi where appropriate using UHF bandwidth, support for further expansion of satellite services in ways that enable asymmetric services to provide practical, affordable, and useful service levels, support for school systems, in particular, and libraries, related educational enterprises to offer broadband services for both educational and, where appropriate, general access within the rural area; and, finally, for support for higher education, including community colleges and universities to extend their programs online in support of degree completion as well as rural economic development.

Finally, as we speak here in Springfield, Illinois, I remind you, as you have noted, this is the home of Abraham Lincoln. It is Lincoln who had the vision and foresight to bring higher learning to the people of our country through the Morrill Act of 1862 conceiving land-grant universities, including the University of Illinois. This vision of Abraham Lincoln is realized in the 21st century through online learning.

In many ways, the Internet has become the land, the location of campuses and learning. We have that same obligation that we had 150 years ago when the Morrill Act was passed and enacted and signed by Abraham Lincoln to advance the learning opportunities and advantages to the citizens of all parts of the United States.

Thank you, Mr. Chairman, and Members of the Committee.

[The prepared statement of Mr. Schroeder follows:]

PREPARED STATEMENT OF RAYMOND E. SCHROEDER, PROFESSOR EMERITUS AND DIRECTOR OF ONLINE AFFAIRS, CENTER FOR ONLINE LEARNING, RESEARCH, AND SERVICE, UNIVERSITY OF ILLINOIS AT SPRINGFIELD, SPRINGFIELD, IL

Mr. Chairman, Members of the Committee, my name is Ray Schroeder. I am a Professor Emeritus and Director of the Center for Online Learning, Research and Service at the University of Illinois Springfield.

I have been engaged in online learning for the past 15 years, including founding the Office of Technology-Enhanced Learning in 1997 that more recently became the

Center for Online Learning, Research and Service on our campus. I have been humbled to receive national recognition in a number ways, most recently as the inaugural recipient of the Frank Mayadas Leadership in Online Learning award from the Sloan Consortium. I am fortunate to have worked on this campus for the past 34 years and another half dozen years on the Urbana campus of the University of Illinois. Among our three campuses, the University offers more than 100 online degree and certificate programs. From the Springfield campus, we now serve 1,425 online-only students enrolled in our 17 online degree programs and various certificate programs. These students are located in 49 states and 12 countries this fall semester. The average age of our online students is 34. They are, for the most part, early and mid-career professionals seeking to complete degrees and certificates to enhance their careers and understanding of the rapidly changing technological, economic, social and political environment in which we live. Our online programs are noted nationally for excellence in online teaching and learning; student engagement; and success in degree completion.

The Sloan Consortium, the leading national association dedicated to quality in online teaching and learning, reported that more than 4.5 million U.S. students took at least one online class in 2009. That number has since risen to an estimated more than six million students in the past year. This represents thirty percent of the twenty million students enrolled in post-secondary education in this country. In the State of Illinois, the Illinois Virtual Campus has been tracking the growth of online learning for the past dozen years. It is an impressive record of annual increases in enrollments among students in community colleges as well as private and public colleges and universities across the state: *http://www.ivc.uillinois.edu/report/pdf/Spring11.pdf*.

Online learning provides access to higher education for those busy Americans who are working, caring for families, and/or seeking to advance their careers. The University Professional and Continuing Education Association (UPCEA) and the Association of Continuing Higher Education (ACHE) just last week cosponsored a national Summit on the Future of Online Learning in Chicago. The Summit examined the important and growing role of online learning in adult, professional and continuing education. UPCEA will convene the organizations represented at the Summit in a follow-up conference to be held in Washington, D.C. in the coming months. Several organizations with a stake in adult and online programs will develop a joint policy agenda and a blueprint for expanding access to quality online learning programs.

Access to online learning in the U.S. is provided, in most cases, for those with disabilities, those with non-traditional work schedules, those who cannot travel to a campus. But, online learning does not provide access to all Americans. Many of those Americans who reside and work in rural areas of our country are disenfranchised from the 21st century delivery mode because they are not served by the affordable broadband connectivity required to fully participate in online learning.

I teach online every semester and most summers. Among the courses I have developed and continue to teach online is "Internet in American Life" for which I am the lead instructor of the five sections we are offering this fall. As you might suspect, the readings for our course are from the Pew Charitable Trust ongoing initiative of the same name. As part of the course, for the past several years, we complete a module on broadband access in rural, suburban, and urban areas. The research is consistent with our student anecdotal reports—broadband stimulates learning, economic development and opportunity; the lack of such access is detrimental to schools and business (both small and large) development. From that class, as recently as last week, I can relay comments from students residing in rural locales reporting their frustration with having to pay nearly $100 a month for less-than-reliable broadband service capped at as little as one or a few gigabytes. The fear of exceeding the limit causes parents to restrict Internet access to children doing schoolwork. It is far different in urban areas where smart phones connect at 4G speeds and free access to high speed WiFi is available at libraries, McDonald's and coffee shops around the corner.

I would like to briefly relate the experience of my younger daughter, a graduate of UIS, who founded a small business in a rural area near Cobden, Illinois in 2008. The business, InBlue, specializes in leather bound journals; iPod and iPad cases; wallets; and related leather bound articles that are personalized with ink drawings and lettering. This small business began as a storefront on the boardwalk in the small community of Makanda, Illinois. The business only became successful when she was able to move to Carbondale, and eventually to Asheville, North Carolina. Her success in both communities was not due to local sales, a scarcity of workers or supplies, but to the more than 90% of her sales that are made online. She credits

the success to access to broadband services that allowed her to reliably connect to clients who now span the globe from large U.S. cities, to Amsterdam; London; Sydney; Abu Dhabi and other points around the world as she sells online at *http://inblue.etsy.com*. This is a thriving small business that employs several staff members utilizing American made and produced supplies (leather, ink, thread, *etc.*), creating a positive cash flow into the small City of Asheville, NC, through sales to other countries and elsewhere. Imagine how many such small businesses in rural areas fail, or fail to launch, simply because of lack of access to that which we take for granted in more urban areas, broadband Internet service.

Speaking as an individual with expertise in this area, I personally believe that among the fabric of solutions that may be woven to address this problem are:

- Expansion of 3G and 4G services to deep rural areas—not just along the interstate highway system.
- Support for telephone and cable companies—as well as rural entrepreneurs—to expand services to connect rural residents.
- Expanded use of available microwave frequencies to serve areas where this distribution mode is practical.
- Support for further expansion of satellite services in ways that enable asymmetric services that provide practical and useful service levels.
- Support for school systems, libraries and related educational enterprises to offer broadband services for both educational, and where appropriate, general access.
- Support for higher education, including community colleges, colleges and universities; to extend programs online in support of degree completion as well as rural economic development.

As you meet here in Springfield, Illinois, I remind you that our great forefather, Abraham Lincoln, had the vision and foresight to bring higher learning to the people of our country through the Morrill Act in 1862, conceiving land-grant universities, including the University of Illinois. The vision of Abraham Lincoln is realized in the 21st century through online learning. In many ways, the Internet has become the land, the location, of campuses and learning. We have the same obligation 150 years after the first Morrill Act to open learning opportunities and advantages to the citizens of all parts of our country.

Thank you, Mr. Chairman, and Members of the Committee, for your kind attention.

The CHAIRMAN. Thank you, Mr. Schroeder.

I might also note that we have been joined by my colleague and good friend, and frankly many years a Member of the Illinois General Assembly here in Springfield, Randy Hultgren, who represents the area that is a little bit to the north, and then somewhat to the northeast of here, and does an extraordinary job, and is really a part of our whole center aisle caucus mentality. And we are honored to have you with us, Randy, as well.

I also mentioned to people here and otherwise that to the extent we can with the time constraints we have when we are done, we are going to go out in the western portion of the city, go out to Stone Seed, and then have the opportunity to visit with them a little bit on GPS and a number of other technological aspects of the subject matter with which we deal.

I am going to recognize Mr. Bartlett. Feel free, any of the four witnesses here, to do what you need to do. We do have your written statements, and feel free to do that, reread them if you want, but if you want to kind of summarize for us so we can get into a little more questions, we would be glad to do that. We will be glad to do whatever you would like to do, but just for the record, we do have your written statements, which are extraordinarily well prepared and most gratefully received.

So, with that, let me introduce Mr. Bartlett of Prairie Power, Inc.

STATEMENT OF JAY C. BARTLETT, P.E., PRESIDENT AND CHIEF EXECUTIVE OFFICER, PRAIRIE POWER, INC., JACKSONVILLE, IL

Mr. BARTLETT. Thank you very much, and good afternoon, Chairman Johnson, Ranking Member Costa, and Members of the Committee. I am Jay Bartlett. I am the President and CEO of Prairie Power, Inc., commonly referred to PPI.

Thank you very much for giving me this opportunity to speak to you about rural broadband. This is something that is near and dear to our hearts. It is something that we approach with a great deal of urgency in our business.

PPI is a not-for-profit electric generation transmission cooperative headquartered in Jacksonville, Illinois. PPI is a Touchstone Energy Cooperative that is owned by ten rural electric distribution co-ops.

Our service territory covers about 17,500 square miles of rural Illinois. To put this in context, that is the same areas of New Jersey, Connecticut, Delaware, and Rhode Island combined approximately. However, the number of customers that we serve is just slightly less than the number of people that are in Springfield, Illinois. I hope that gives some context to the idea that we serve a very sparsely populated area.

PPI itself is a technology oriented company, and our core business is absolutely dependent on high speed data communications.

Two trends have thrust PPI into taking a proactive role within the development of rural broadband. First, PPI has experienced a steady decline in our ability to obtain high quality data communication services from our traditional service providers. Second in striving to reduce costs and lessen the impact on our environment of producing electricity, PPI is taking a very proactive stance in the development of smart grid services. The development of the smart grid means to PPI that we need to change from moving megabytes of data from our remote locations to terabytes of data to our remote locations.

So that is one of the comments that I would like to make, and I am going to paraphrase a lot of my testimony.

The next point that I would like to make in terms of making sure that the rural economy is served well is that we believe it is essential that rural broadband be looked at in two separate tiers. One I call tier one, which is wireless services. Some of our members sell and deliver wireless services to their members, both 3G and advanced 4G services. The other is fiber optic services. We believe that both of these are very, very important, and it has been troubling to us that there has been a tendency for people to lump generally broadband services into one category, and they are not the same.

Fiber optic services are going to be needed in rural areas to support things, such as telemedicine. I was fortunate enough to be involved in the development of a metropolitan area fiber-optic network here in Springfield. We built a 160 mile fiber-optic network here. Every medical institution in Springfield is linked. The medical schools are linked; 51 public school sites are linked. We have tremendous and have seen tremendous economic growth happen due to the presence of that advanced technology. So, I have seen

what it can do. I see when it does not happen in the rural countryside.

To date, we have been very appreciative of the fact that the Federal Government, USDA in particular, has tried very hard to support broadband development. Unfortunately, we have not seen much of it materialize in the remote parts of Illinois. That is not due to anything less than Herculean efforts on their part, but nonetheless it is not there yet.

So, we have moved to a place where we need to seek solutions. I mean, like I said, we need to do it with urgency.

What we are doing is we are forming a consortium of not-for-profits like PPI to come together and essentially make it happen. And it will be a combination of both wireless solutions and fiber solutions in the countryside. And I will speak a little bit more about that.

Of course, the absolute requirement for broadband access is of no surprise. It has been known for some time that it would be a requirement for the economic stability and growth of the rural economy. It is also just common sense to understand that achieving this goal is more expensive in lower population density than urban areas. Last, it is will understood that our cities, indeed many parts of the world, depend on the rural U.S. for sustenance. There is no room for failure, none whatsoever, in keeping rural America economically healthy. It is a symbiotic relationship between us and not just the United States, but I believe the rest of the world, is so important. We feed so much of the world.

So, the importance of broadband quality to improve the rural economy is not just common sense; it is something that we can do. It is attainable.

PPI is, again, you are looking at a common sense approach really needs to dictate what we do and how we move forward. It is a not a highly profitable venture to build broadband infrastructure into the countryside. If it were, it would have already been done, and that is why we are here talking today. In light of this fact, we took a fresh look at what resources we could marshal, and trying to accomplish the goal of getting the broadband, the quality, taken care of.

The following is a synopsis of the elements we intend to use to reduce the cost and yield greater availability of both wireless and wired broadband solutions in rural Illinois.

First, we are creating a consortium of not-for-profit and for profit entities to construct and operate broadband infrastructure. We believe the not-for-profit cooperative business model is ideal to accomplish much of the task at hand. The cooperatives have conquered the task of building capital intensive electric networks to serve sparsely-populated areas. We believe that the same cooperatives are ideal candidates to facilitate the deployment of advanced telecommunications facilities.

Rural co-ops already have a great deal of infrastructure in place that can be used to accomplish broadband proliferation at low costs. The development of relationships between our members, the local businesses, and the economic development communities are already in place.

There are not enough resources available to build on wisely, and our relationships, I guess, give us the knowledge to know where we have to build.

To finally sum things up, here is what I will say. I want to make four points. Self-help is what is important with us, a major part that we think is very important that is commensurate with the importance of the rural America to the entire country. Finding ways to leverage each dollar spent to gain multiple benefits, including both increasing broadband access, but also helping smart grid and other initiatives that help the environment are important. Local control and governance is very important and absolutely essential to make sure we utilize the sparse resources that are available. And finally an emphasis on the limitation of the one size fits all solutions.

So, Mr. Chairman and Members of the Committee, thank you for inviting me to testify today. I will be happy to answer questions.

[The prepared statement of Mr. Bartlett follows:]

PREPARED STATEMENT OF JAY C. BARTLETT, P.E., PRESIDENT AND CHIEF EXECUTIVE OFFICER, PRAIRIE POWER, INC., JACKSONVILLE, IL

Good afternoon, Chairman Johnson, Ranking Member Costa, and Members of the Subcommittee. I am Jay Bartlett, and I am the President and CEO of Prairie Power, Inc. (PPI). Thank you for the opportunity to testify on the importance of access to broadband telecommunications to support economic development in rural areas. More specifically, I would like to share with you some of the challenges we face in serving rural areas due to the lack of suitable broadband communications infrastructure, and our plan to overcome these obstacles. There are certainly many ways to accomplish rural broadband proliferation. It is my honor to present the solution we are pursuing to deploy broadband infrastructure in that part of central and western Illinois served by PPI's member distribution cooperatives. This solution was conceived with rural economic development as a primary goal.

As a matter of background, PPI is a not-for-profit electric generation and transmission cooperative headquartered in Jacksonville, Illinois. PPI is a Touchstone Energy Cooperative that is owned by its ten members which are all rural electric distribution cooperatives in Illinois. PPI and its member distribution cooperatives provide electric service to rural residential, farm and business members in a combined service territory that covers approximately 17,500 square miles. PPI's primary mission is to generate, procure and deliver reliable electric energy to its members via approximately 78 electrical transmission or distribution substations. It is also PPI's function to support economic development and to support energy efficiency initiatives on behalf of its members. PPI's member cooperatives understand the challenge of delivering service to sparsely populated rural areas. To put this challenge in perspective, the combined service territories of PPI member cooperatives cover an area slightly smaller than the combined area of New Jersey, Connecticut, Delaware and Rhode Island, while the number of member/consumers that the PPI member cooperatives serve is just slightly less than those located in just Springfield, Illinois.

Prior to joining PPI in 2009, I had been directly involved in the construction of a metropolitan-area fiber-optic network. As a result, I have witnessed firsthand the positive impact that the availability of an advanced telecommunications network infrastructure can have on economic development, education and improved delivery of healthcare services.

PPI is a technology-oriented entity, and our core business is absolutely dependent on reliable, secure high-speed data communications. Two trends have thrust PPI into taking a proactive role in the development of rural broadband. First, PPI has experienced a steady decline in our ability to obtain data communications services from the traditional commercial service providers. Second, in striving to reduce costs and lessen our impact on the environment, PPI requires drastically increased bandwidth to realize the benefits to be derived from implementation of new smart-grid technologies. Stated differently, PPI suffers from the lack of rural broadband access, and we are in a prime position to witness and understand the impact this lack of access has on the rural economy and quality of life. PPI is also in a prime position to attack the problem. It is not in our nature to complain or stand by idly in the

face of adversity. It is our job to find and implement solutions to benefit our distribution cooperative members and, in turn, their residential, farm and business members, no matter how challenging the endeavor.

PPI commends the commitment made by the Federal Government and the Rural Utilities Service of the U.S. Department of Agriculture in particular for striving to improve access to broadband for rural citizens. It is our hope that this commitment is sustained and improved upon until ubiquitous broadband access is attainable to all. Our distribution cooperative members were founded to provide the benefits of electric energy to rural America at a time that commercial entities had little interest in serving rural locations. The result of this effort has contributed to the evolution of the greatest and most efficient agricultural system in the world. It is our belief that to sustain and advance this advantage, the delivery of broadband services to rural America will be equally as important as was rural electrification. Perhaps even more important, the lack of broadband services to rural areas is akin to depriving those citizens of both the energy to mechanize and the libraries to learn.

We believe it is essential to separate the rural broadband services issue into two distinct tiers that both have merit, but require separate consideration. These tiers, which I will define as tier 1 and tier 2, differ in the level of service provided and in the type of technologies which are generally used to deploy them. Most rural broadband discussions to date have centered on expanding broadband access in general terms, a one-size-fits-all approach that is noble in its cause. But, in our opinion, this approach is insufficient to realize the full range of benefits that remain unrealized by fully engaging rural America.

Tier 1 is the lowest cost technology to deploy and can be categorized generally by wireless, point-to-multipoint broadband delivery. These deployments oftentimes also use wireless connections to support backhaul of network traffic to a point of aggregation for connection to the Internet. This broad category of technologies that has been rapidly developing in terms of its capabilities minimally fits the above-mentioned analogy of access to libraries for rural citizens. These technologies also certainly can support many forms of e-commerce that can help spur economic development.

However, we believe that access to higher speed, highly reliable symmetrical bandwidth is just as important to rural areas. There are various technologies employed to deliver these services, but they are generally characterized by the transport of data via optical or "wired" means. From an economic development standpoint, this type of service must be part of the rural broadband deployment plan for the United States. Many business operations, and more in the future, will depend on this level of network to thrive. We believe this fits the electrical energy part of the previous analogy. Unquestionably, there is overlap between the two loosely-described technologies that I have mentioned, and the proponents of each technology pervasively argue their respective merits. However, we believe it will require a deployment of a mixture of both types of technologies ultimately to close the digital divide and place rural areas on an even footing with their urban counterparts.

Tier 1 broadband access is important for many reasons to support economic development in rural areas. This level of service is capable of improving rural quality of life by allowing rural residents to join the growing social networking fabric of the world and to participate in non-critical or non-time-sensitive e-commerce with other businesses. This level of service also allows for non-time- or non-bandwidth-critical maintenance of remotely hosted (cloud-based) business solutions located in remote data centers with higher speed, higher reliability network access. Finally, this level of service also provides alternative means of supporting voice communications.

Tier 2 broadband services are required to attract and enable an entirely different segment of business activities. In our opinion, it is vital to ensure this segment is not overlooked. Examples of entities that require this tier 2 level of service are many, and the following are some examples.

- Financial and commodities service businesses which require highly reliable, low-latency access to remote trading systems.
- Warehousing and order fulfillment centers which require rock-solid reliability to ensure transaction processing is available continuously.
- Telemedicine applications which require both high reliability and high bandwidth to support applications such as remote radiography with distant medical centers.
- Enterprises that generate substantial amounts of data locally in their operations that require high-bandwidth connections to support off-site backup and disaster recovery, such as local government entities and utilities.

- Educational institutions seeking to apply high-quality distance learning. These applications require high bandwidth and low latency to allow real-time multimedia interaction with remote participants. Highly reliable, high bandwidth connections also greatly expand the suite of offerings available to small, rural school systems.
- Any business that has multiple locations which can realize efficiency benefits by collapsing its information technology infrastructures to fewer centralized locations to reduce expenses if it has access to reliable, high bandwidth connections.
- Finally, this infrastructure can provide ideal backhaul support of tier 1 systems.

As mentioned earlier, PPI and its member electric cooperatives serve as a prime example of how tier 2 level services could create economic development opportunities by lowering energy prices and improve the environment through lower emissions by implementing elements of the smart grid. This result will not happen without drastic increases in the availability of bandwidth to our remote locations. PPI's rural electric cooperatives are already well poised to take advantage of these new technologies, as the vast majority of our members have already installed advanced customer metering systems. To gain the next level of benefits from this investment will require the transmission and storage of terabytes of usage information, and the ability to signal large numbers of electric loads (member/consumers) in near real time.

PPI can realize the benefits of such a system through the use of wireless technology at less cost to PPI than it can with fiber-optic cable. But, by using wireless technology, rather than fiber-optic cable, PPI would miss an opportunity to support future economic development. By striving to drive fiber-optic deployment to the electric substation level, PPI would ensure that tier 2 network services are within reasonable distances of other potential users throughout most of PPI's cooperative members' service territories. This fiber-optic proximity would then allow for selective build-out of fiber-based solutions where needed and provide excellent tower locations for tier 2 services.

The point of these efforts is very simple. The rural areas served by PPI and its members are in desperate need of economic development to support the continued health of the nation's breadbasket. The service territories of the PPI members offer many unique advantages to businesses. Relatively low-cost labor and real estate, a more flexible workforce due to the cyclical labor demands of agriculture, and an attractive quality of life are all ready and waiting to enhance the productivity and efficiency of America's businesses. The one factor that is missing is the requisite connection to the digital fabric on which businesses now run.

Seeking Solutions

The absolute requirement for broadband access is of no surprise. It has been known for some time that it would be a requirement for the economic stability and growth of the rural economy. It is also just common sense to understand that achieving this goal is more expensive in areas with lower population densities than urban areas. Lastly, it is also well understood that our cities, and indeed many parts of the world, depend upon the rural United States for sustenance. There is *no* room for failure in the endeavor of keeping rural America economically stable, as the symbiotic relationship between it and the rest of the world is too important.

PPI was very pleased to see the tremendous importance the Federal Government placed on rural broadband development and hoped these programs would lead to the necessary investments for businesses like our own to continue to evolve. In our area, this has not been the case. Despite funding opportunities offered through the American Recovery and Reinvestment Act, and the programs offered through the USDA, the telecommunication systems needed for our communities to thrive have not materialized. So, we have elected to "go it on our own".

Common sense dictates that it is not a highly profitable venture to build broadband infrastructure into low population densities. If it were, it would already have been done. In light of this fact, we took a fresh look at what resources we could marshal to accomplish our goal of establishing broadband equality. The following is a synopsis of the elements we believe can be marshaled to reduce costs and yield a greater density of both types of broadband services previously described.

- Endeavor to create a consortium of not-for-profit and for-profit entities to construct and operate the infrastructure. We believe the not-for-profit cooperative business model is ideal to accomplish the task at hand. Rural electric cooperatives and rural telecommunication cooperatives have stood the test of time, and serve as a proven example of how to accomplish essentially the same task now at hand. The cooperatives have conquered the task of building extremely capital

intensive electric networks to serve sparsely populated areas. We believe the same cooperatives are ideal candidates to facilitate the deployment of advanced telecommunication facilities.

- Utilize the existing right-of-ways already possessed by rural electric and telecommunication cooperatives to minimize expenditures on easements and right-of-ways.
- Leverage the existing close relationships between our member cooperatives and the local businesses and economic development officials to ensure we build the correct infrastructure to the right places. There are not enough resources available to build unwisely, and the cooperatives have detailed knowledge of the local requirements.
- Find multiple, non-competitive uses for the same dollar spent. In our case, PPI has needs and limited funds available to support smart-grid development and electric system control. The same optical fiber that we construct to accomplish this goal can be used by telecommunication providers to deliver broadband services. In kind, the telecommunication cooperatives can provide access to their existing fiber-optic infrastructures to facilitate PPI's accomplishment of its smart-grid and electric reliability enhancement goals without constructing unnecessary, redundant communications facilities.
- Seek ways of leveraging staff from the member consortiums to reduce overall labor costs. For example, PPI already operates a continuously-manned control center that can be utilized for network monitoring and maintenance dispatch, while the telecommunication providers can provide provisioning services and fiber-splicing services.
- Both the telecommunication cooperatives and some of the electric cooperatives are already providing third and fourth generation wireless Internet services. We will strive to streamline service and support of these ventures and provide more robust data backhaul means.
- The electric cooperatives own many communications towers, some of which are already also in use to provide Internet services. We believe these towers could be used to a greater extent to help facilitate providing tier 2 services.
- Last, accountability is essential to successfully tackling a challenge of this magnitude. Accountability is a cornerstone of the cooperative business model, as it is wholly-owned and democratically-controlled by the members that we serve.

In summary, we are attempting to use many of the same principles that were used to accomplish rural electrification ¾ of a century ago. In some ways, we are clearly ahead of our position 70+ years ago. We know who our customers are and much about their needs, because they are our owners. We already have established rights-of-way, and we know how to conduct business in the rural environment.

What is different, is that we will be moving forward largely without the financial support of the government which was a prominent part of enabling rural electrification. We are hopeful that by demonstrating successful, responsible and effective solutions to bringing modern telecommunications capabilities to rural areas, state and Federal Government will recognize this unique approach to solving the rural broadband issue is worthy of special consideration. With the addition of governmental support, we will be able to provide deeper network penetration at a more rapid rate.

Mr. Chairman, thank you for inviting me to testify today. I am happy to answer any questions you or the Members of the Committee may have.

The CHAIRMAN. We appreciate it, Mr. Bartlett.

And I am going to politely ask the next three witnesses if we can do the best we can to try to meet—we have some time objectives in terms of being able to ask questions and be able to do our tours and so forth. So, we want to hear everything, but we appreciate your willingness to help us move along here.

Now, since I lost the arm wrestling contest, Mr. Schilling, I get to introduce Sue Campbell now. I was with she and her husband a week ago at a function down in beautiful southern Macoupin County, and really enjoyed the opportunity to meet you and your family. And we are privileged to have you today.

So, with that I would introduce Sue Campbell, the CEO of Community Memorial Hospital in Staunton, Illinois, right down in God's country.

STATEMENT OF SUE CAMPBELL, CHIEF EXECUTIVE OFFICER, COMMUNITY MEMORIAL HOSPITAL, STAUNTON HOSPITAL, STAUNTON, IL

Ms. CAMPBELL. Oh, absolutely. Thank you so kindly, Chairman Johnson, also Ranking Member Costa, and Bobby Schilling, my Congressional Representative. Thank you for the invitation. It is indeed a pleasure and a privilege to be here.

I am currently the CEO of a critical access hospital in Staunton, Illinois. We are one of 51 critical access hospitals within Illinois, and we have the privilege and the honor to provide medical services to some of our more elderly and poorer people within our county and out state.

Critical access hospitals also are usually one of the main driving economic factors in the communities that they serve. They are usually one of the larger employers, and they provide critical health services to these people.

I had a personal experience back in 2007. Our hospital was getting ready to upgrade our CAT scanner from a single slice, which was very limited on the studies that it could perform to a state of the art 64-slice CAT scanner. This was a huge step for our small hospital. However, we quickly determined our Internet access was served by a T1 line, which really provided less than one megabyte. We shared this T1 line with the local public library and the high school. It was not dependable, it often broke down. it would not serve our purposes.

We were very fortunate. We have an excellent local provider, Madison Communications. We partnered with them. They rapidly assessed the situation, and they were able to bring fiber optic connection to our door. We were able to then have broadband with 5 megs, which was extremely like a super highway for us, totally met our needs at that time. And soon our CAT scan studies were flying down the highway, and the reports were coming back. Our cardiologists that come and visit were extremely happy. We were able to do much more extensive studies with less radiation exposure to the patients. It was wonderful.

Hospital administration thought, we have solved our broadband needs for years to come. We were wrong.

As equipment upgrades have come along, new technology that we have added to the hospital, the platform has moved from analog to digital. It all requires a connectivity of greater broadband width. And it will not be too long before we are going to have to consider doubling our broadband width from 5 megs up to 10 megs.

Teleradiology is a huge and wonderful new adaptation. Many of our critical access hospitals throughout this nation have to staff their ERs with mid-level practitioners, nurse practitioners, sometimes EMTs, because they do not have the ability to attract a physician to come in and provide that service. These are the departments that provide life-saving services to the members of these communities.

Through teleradiology, it has enabled that mid-level provider to have access to a physician many, many miles away at a remote location. It is fast, it is economic, and it is the best thing for the patient. They are able to assist in the diagnosis and the treatment plan for those patients, and it has been life-saving in many, many instances.

One of the huge needs that we are experiencing in our ER today is mental health patients that are in treatment for both substance abuse as well as mental health and emotional issues. In our rural, remote areas, we do not have local psychiatrists, local psychologists, local social workers. The wonderful SIU School of Medicine here in Springfield has initiated a collaborative program with many of our critical access hospitals to provide access to their psychiatric department to help assess and determine a treatment plan and proper disposition of a patient that enters our ER. This, again, is cost saving.

Many times a patient will come in with mental health or behavioral health issues, and they literally have to be held over many, many hours until we can determine a proper treatment plan for the patient. That costs lots of money. With this new connection to telemedicine and the psychiatric access, it has really helped to promote the service to these patients.

One last thing I really would like to address is I would be very remiss if I did not talk about the expansion of the electronic medical records that is required by the Health Care Reform Act today. Every single hospital and every single health care provider is being required to convert to electronic medical records and to reach meaningful use, and this is a wonderful initiative. However, every single provider will have to have a very dependable, secure, rapid Internet connection to accomplish this initiative.

Just, please, as you take consideration of the need for broadband throughout this country, that those are the huge needs within health care, and it will continue to grow.

Thank you for the honor to be here.

[The prepared statement of Ms. Campbell follows:]

PREPARED STATEMENT OF SUE CAMPBELL, CHIEF EXECUTIVE OFFICER, COMMUNITY MEMORIAL HOSPITAL, STAUNTON HOSPITAL, STAUNTON, IL

September 24, 2011

To: Subcommittee Members on Rural Development, Research, Biotechnology, and Foreign Agriculture

My testimony will focus on both the challenges and the opportunities for the expansion of broad-band service into the offices and facilities of rural and remote healthcare providers throughout the nation.

In the fall of 2007, our hospital, Community Memorial in Staunton, IL, was planning the upgrade and installation of a state of the art 64-slice CAT scanner to replace a single-slice cat scanner that had been in place for well over a decade. The new 64-slice scanner would enable the hospital to perform a much broader scope of testing with significantly improved images at a much faster rate and less radiation exposure for the patient. However, the images had to be transmitted electronically to a Radiology Group over 50 miles away for interpretation due to the fact that our small, rural hospital does not have a Radiologist on staff on a full-time basis.

Up to that point in time, the hospital's broad-band connection consisted of a T1 line that was shared with the local high school as well as the city library, and connectivity was often interrupted or extremely slow. This connection would not begin to meet the requirements of the new cat scan equipment and enable the hos-

pital to perform teleradiology. It quickly became apparent a significant upgrade in the broadband width, quality, speed and security must be made.

We were fortunate! Our hospital was able to partner with the local communication provider, Madison Communications, and they were able to deliver a fiber-optic connection to the hospital that provided 5 megs of high quality, dependable, rapid and secure broadband service. Soon the cat scan studies were flying down the cyber super highway. Hospital Administration thought they had secured sufficient broadband width for many years to come, but we were wrong! As additional medical equipment has been replaced with newer and upgraded models, the technology has been upgraded from analog to digital, and each piece of equipment demands a fast, dependable and secure broadband connection. We continue to consume the broadband width we presently have and will soon have to make a decision to increase and most likely double it.

The advancement of telemedicine has opened up a multitude of opportunities for improved medical care especially in rural and remote areas. It literally allows a physician many miles away to look directly into the exam room and provide consultation to another physician, nurse, or other care-giver and greatly increases a better out-come for the patient, and often at a lower cost.

It is a well-documented fact that the nation faces a shortage of primary care physicians as well as specialty care. This fact is glaringly evident in the rural and remote healthcare facilities throughout the nation. Many rural hospitals are forced to staff their Emergency Departments with mid-level practitioners such as Nurse Practitioners, Physician Assistants, or Emergency Medical Technicians who work under the direction of a physician at a remote location. This could not be done without the development of telemedicine. This technology provides a window into the Emergency Department, or any other department within the hospital such as the Operating Room, and it greatly aids the local care-giver in establishing a diagnosis and treatment plan for the patient. This is especially beneficial and can be life-saving for the patient that may have suffered a critical cardiac episode or stroke. In addition, telemedicine can help reduce costs and help keep the patient at the local facility. The specialty physician can consult via the computer terminal and assist the local primary care physician develop a course of treatment that does not require a transfer to another larger facility. This save time and money, and the patient can remain in their local hospital and closer to their home and family.

A number of the Critical Access Hospitals within Illinois are presently talking with the SIU School of Medicine in Springfield to collaborate and develop pathways to access mental health specialists such as Psychiatrists. This collaboration has been driven primarily due to the increased number of behavioral and mental health cases showing up in the rural Emergency Departments, and the rural health facilities do not have the resources or access to local mental health specialists to adequately treat these patients. These patients are often "held-over" in the Emergency Department until an appropriate transfer to a mental health facility can be arranged. Access to a mental health provider such as a Psychiatrist via telemedicine would greatly enhance and expedite the proper treatment of the patient. In addition, cost savings would be recognized because the patient would not be "held-over" for hours in the Emergency Department waiting for a mental health evaluation.

Broadband connectivity is also enhancing opportunities for the members of the medical staff to participate in continuing education and Grand Rounds at some of the teaching institutions through-out the country. Physicians that are living and practicing in the rural and remote areas of the country have little opportunity to shut down their practice for a day or two and travel a distance to attend a conference to interact and learn from their peers. The Internet has totally changed and increased the opportunity for continuing education for not only physicians but all members of the clinical staff, and it is a very cost effective method to reach many students at the same time.

I would be remiss if I did not discuss the huge demand for broadband connectivity throughout every corner of this country that has been created by the Affordable Care Act of 2010, also known as the Healthcare Reform Act. The requirement of all healthcare providers to adopt an electronic medical record and reach meaningful use in order to meet the requirements of this law and maintain their level of reimbursement, has been staggering. There is not a single physician's office, hospital, or healthcare facility that has not been impacted by this law. Every provider will have to be able to successfully transmit electronic health records to a Health Information Exchange (HIE) site and have the capability of sending and receiving electronic health records. The demand for high-quality, rapid and secure broadband connectivity will be greater than ever in the history of this country. The demand for access to this connectivity does not come without a price, and many rural and remote healthcare providers will be hard-pressed to find the money to invest in cer-

tified computer systems that meet the requirements of meaningful use as well as the access to broadband connectivity to carry their data. This is indeed a challenging time.

I thank you for the opportunity to submit this testimony to the Subcommittee.

Respectfully Submitted,

SUE CAMPBELL, *CEO,*
Community Memorial Hospital,
Staunton, IL.

The CHAIRMAN. Thank you, Ms. Campbell. We appreciate your testimony.

And now, we will go to our fourth witness, Mr. Jim Crum, from U.S. Wellness Meats in Virginia, Illinois?

STATEMENT OF JIM CRUM, BEEF PRODUCER, U.S. WELLNESS MEATS, VIRGINIA, IL

Mr. CRUM. Thank you, Mr. Chairman. I am one of the members or people that have put a company together starting in 1996. A dozen farmer producers got together and went to a meeting with Allen Savery's people that put together how to lead a sustainable business to rural communities. With that came the idea of rotational grazing, grasslands, to increase the productivity of the grasslands, capture carbon by creating organic matter from the grasslands. And we decided to sell grass-fed beef online on the Internet.

We formed a company in 2000 and started marketing grass-fed beef, killed some cattle, and put them in boxes, and thought the world would beat a path to our door. But they did not. We had dial up at that time. We were sort of ahead of the curve on all the local food. We were ahead of the curve on the health food. And we sort of sat there and wondered when it was going to happen.

Along the way, we had some Value-Added Producer Grants that helped us put a road map on to create where we wanted to go. We had feasibility study marketing plans, business plan. Marketing was a main idea that we had to come up with to reach the people. We had updated Internet service along the way also. And with that, you will see in the presentation the map of the U.S. where our customers are. It is mainly East Coast, West Coast locales where most of our customers are based. Population centers, partly people that are more health conscious.

Plus also we feel that the Internet access might be part of the reason for it.

It is a growing business. Along with starting with grass-fed beef, we added poultry and lamb, pork, all natural products. And we have them fabricated, and then put in cold storage facilities in Ames, Iowa. And then, people get on the Internet and find our company, and then find our products, order off the Internet, and then they are shipped directly to their door, frozen.

Internet is an invaluable tool to our company. The service we have is very good, but things could always be better. We have several You Tube videos that we have with our websites, and they are shown along with it.

It is an Internet-based company that markets 90 percent direct to the consumer. It adds value to the rural communities. Via the Internet, we buy other producers' products, so it is not just our products that are sold; it is other producers' products.

And we applaud you for your diligence on improving Internet access to the rural communities because we feel that is where a lot of this starts, whether it is food production or families. But, all people, in general, have some agriculture tie either in their family, a few generations removed. We are trying to improve it, and maybe the rural communities will prosper in the future.

Thank you.

[The prepared statement of Mr. Crum follows:]

PREPARED STATEMENT OF JIM CRUM, BEEF PRODUCER, U.S. WELLNESS MEATS, VIRGINIA, IL

Date: September 24, 2011

To: Congressman TIMOTHY V. JOHNSON,
Chairman,
Subcommittee on Rural Development, Research, Biotechnology, and Foreign Agriculture,
House Committee on Agriculture,
Washington, D.C.

From: JIM CRUM,
U.S. Wellness Meats.

RE: Testimony on Role of Broadband Access in Rural Economic Development

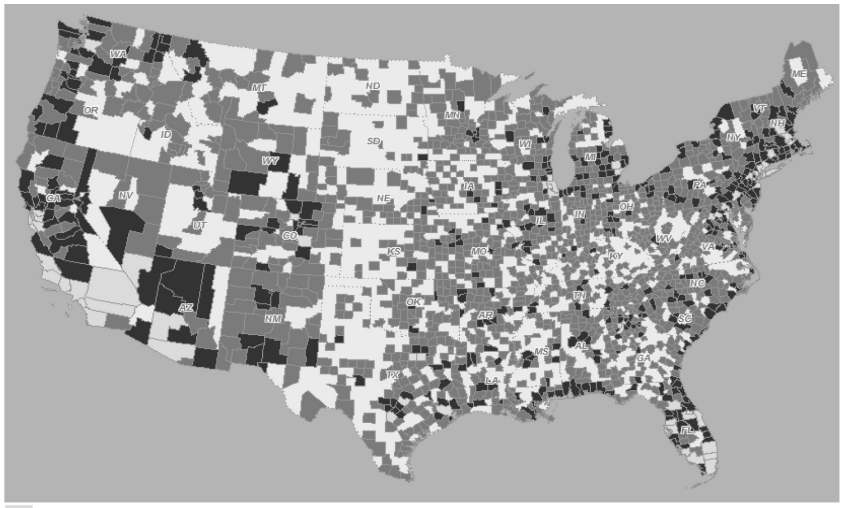
Grassland Beef LLC dba U.S. Wellness Meats is honored to participate in this crucial discussion on Broadband Access in the rural community.

Grassland Beef was well ahead of the retail Internet curve when we opened for business on November 7, 2000. We had the right idea but failed to understand the art of building trust and sales with online marketing. To say we were pioneers is an understatement. With determined persistence we were able to build the business from the ground up over time.

Key points of our journey:

- Forty-five total sales orders in November and December 2000 with only two orders from customers we did not know, pointed out the degree of difficulty in being found online and creating trust for actual cash sales.
- In the beginning, we were dealing with dial up Internet that was painfully slow. Ten years later we have access to 3 mbs down and 2 mbs up, which is a significant improvement from dial up, but not where the rural community needs to be. We would prefer to see 10 mbs up and down and can only dream of 25 mbs up and down which is available in some areas of the country.
- Broadband technology is a lifeline for the rural economy. The ability to tap into all fifty states and the international market is the wave of the future for small business like ours. Entrepreneurs will change the business landscape in our lifetime and corporate America will take note as some of the brightest and most ambitious choose to make their own destiny. In a struggling economy with unemployment at record highs, we should be encouraging start-up companies and small business and making Internet access available to them is a very strong step in the right direction. In one sense, the unrest in Northern Africa this past summer is a result of technology not available 10 years ago.
- Grassland Beef has enjoyed a growth rate of 30% per year to date from our inception in 2000. This would have been nearly impossible without the unlimited access available online. August of 2011 was a record for revenue when we received 2,837 sales orders during that one month.
- Our local Fed Ex sales representative reported in 2009 that half of their volume was edible, which demonstrates how many consumers are now buying food online. Please remember that the rural community is where an abundance of our food is produced.
- Direct to consumer food marketing grew 104.7% between 1997 and 2007 while total ag sales only increased 47.6% (source page 3 *http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5076729*) GLB is in a perfect position to capitalize on this direct to consumer link.
- Grassland Beef has over 700 affiliates that use the web to direct clients from their websites to ours. By utilizing online resources such as these, we are able to gain market growth and increased sales.

- In 2006, Grassland Beef utilized a VAPG USDA Rural Development Grant which has been instrumental in our growth to a better business platform and left us with tools we use every day to successfully manage the business.
- In 2009, GLB recognized the marketing power of social media and devoted one employee full time to tap into Facebook, Twitter and blogging. Being able to point traffic to an online website helped push sales further up the marketing ladder of success.
- 90% of our business is direct to the consumer via Fed Ex. Most of our competition has chosen to sell direct to distributors and grocery chains. The online technology we employ in order to sell direct to consumer reduces the risk of large client turnover which will occur when you are selling in large volume to any one customer.
- The majority of our online sales are centered around urban areas. There are several factors that lead to this, but one is certainly the fact that decent Internet service is not readily available in the Midwest and other rural areas. This can be seen clearly in the map below:



Sales > $100,000
Sales > $5,000 - $100,000
Sales < $5,000

Data compiled March 31, 2011.

- In closing, we have been enjoying high demand and riding a strong wave of Internet success over the last 3 years. We are able to operate a complicated business without debt thanks to being able to open this local region to every county in the USA, as well as some international business, mainly through Internet access.
- We are hopeful that the Subcommittee on Rural Development, Research, Biotechnology, and Foreign Agriculture will see the unlimited potential for putting high speed broadband in the rural community.
- Time is money, and speeding up communications between the producers of smart foods and consumers is a win-win situation for everyone in the chain.
- Finally, there will be new uses for the inherit speed of broadband that no one in this room can envision today but these will certainly amaze all of us within the next 5 years.

The CHAIRMAN. Thank you very much.

Now, we are at our last witness, Mr. Les Fowler, McDonough Telephone Cooperative in Colchester. And I must say, my grandparents, until they passed away, lived in Macomb, so I spent a good part of childhood, about every week, in Macomb and Colchester and

the surrounding area. So, I have a special relationship with that area.

Glad to have you here, Mr. Fowler.

STATEMENT OF LESTER D. FOWLER, LEGISLATIVE AND GOVERNMENT AFFAIRS MANAGER, McDONOUGH TELEPHONE COOPERATIVE, COLCHESTER, IL; ON BEHALF OF NATIONAL TELECOMMUNICATIONS COOPERATIVE ASSOCIATION

Mr. FOWLER. Thank you, Mr. Chairman, other Members, for this invitation to participate in today's discussion on rural broadband access and rural economic development.

For the past year, I have served as the Legislative and Government Affairs Manager on the McDonough Telephone Cooperative, which is headquartered in Colchester. Our industry is uniquely qualified to participate in today's discussion because we are small businesses that lead the way in deploying high speed, sustainable broadband in rural America.

McDonough serves over 3,400 customer lines. Our 1,016 square mile service area is spread across the western portion of Illinois. We employ 48 people who help provide 5 megabyte broadband to our entire service area, with plans to deliver higher speeds.

America's 11,000 rural telecom providers serve approximately 40 percent of the nation's landmass, yet only 5 percent of that population. Thanks to rural providers, rural Americans enjoy universal voice service, broadband Internet, and enhanced emergency preparedness.

The American economy runs on broadband. As the Federal Communications Commission stated earlier this year, broadband infrastructure has become crucial to our nation's economic development and civic life. Businesses need broadband to start and grow. Adults need broadband to find jobs. Children need broadband to learn. As important as these benefits are in American cities, broadband could even be more important in America's more remote small towns, rural, and insular areas, and tribal lands.

Yet as many as 24 million Americans, 1 in 13 of us, live in areas where there is no access to any broadband network. Broadband's economic benefits are well known. Areas that gained broadband from 1999 through 2006 realized a 6.4 percent employment growth on average. Polls reveal that 66 percent of consumers see the lack of broadband access as a disadvantage to identifying job opportunities. Rural providers have made basic levels of broadband service available to over 90 percent of the rural customers.

The Universal Service Fund and intercarrier compensation are crucial in deploying telecommunications in rural areas. USF is a public-private partnership that built quality, affordable voice service to nearly every American. The FCC is reforming USF and ICC to support broadband service, and may finalize a rule as early as October.

The rural carriers, large price cap carriers, recently submitted a consensus framework that represents a landmark agreement among parties that are often at odds. Difficult compromises were made for the sake of regulatory certainty needed to build out to high cost, sparsely populated areas.

The U.S. Department of Agriculture's Rural Utilities Service provides essential financing for broadband for broadband deployment in rural areas that must be paid back with interest, creating a win-win situation for rural broadband consumers and taxpayers.

Our U.S. lending has become crucial to broadband provisioning as private lenders withhold financing due to regulatory uncertainty created by USF and ICC reform under way at the FCC.

We sincerely thank the Subcommittee Chairman Johnson for leading the House in March of this year to encourage the FCC to implement reform carefully and consider the impact on our U.S. borrowers' ability to repay loans.

We gratefully also thank Ranking Member Costa and Congressman Schilling for joining. The Subcommittee has had a long history of allocating our U.S. telecommunication program in a manner best suited to ensure the high cost of sparsely populated rural areas receive service.

For those not familiar with what rural providers and USF and RUS can provide, I will provide you an example.

McDonough Telephone Cooperative completed a network upgrade in 2003 that deployed fiber to within 2 miles of our rural customers, every one of them. And it was made possible by a $14 million loan from RUS.

American needs a strong USF and vibrant RUS.

The rural industry has been the leader in deploying advanced telecommunication services in America's rural areas. The rural providers and associations are eager to continue working with you to fulfill a national objective of making broadband universally available. Thank you.

[The prepared statement of Mr. Fowler follows:]

PREPARED STATEMENT OF LESTER D. FOWLER, LEGISLATIVE AND GOVERNMENT AFFAIRS MANAGER, MCDONOUGH TELEPHONE COOPERATIVE, COLCHESTER, IL; ON BEHALF OF NATIONAL TELECOMMUNICATIONS COOPERATIVE ASSOCIATION

I. Introduction

Thank you for the invitation to participate in today's discussion on the role of broadband access in rural economic development. Broadband has quickly become an essential service that plays a key role in creating and keeping jobs in rural America.

For the past year I have served as the Legislative and Government Affairs Manager of McDonough Telephone Cooperative, which is headquartered in Colchester, IL. Prior to my current position, I served as a data processing commercial office supervisor for 29 years. I regularly work with the National Telecommunications Cooperative Association (NTCA), which represents small, community-based telecommunications cooperatives and other small telecom providers in Washington, D.C. My remarks today are on behalf of McDonough, as well as NTCA and its more than 570 small community-based members that provide a variety of communications services throughout the rural far reaches of the nation.

We believe our industry is uniquely qualified to participate in today's discussion because we are consumer-centric small businesses that are leading the way in deploying high-speed, sustainable broadband to rural America. McDonough, similar to nearly half of NTCA's other members, operates and functions as a cooperative. In a cooperative structure, the consumers are also the owners, so every idea and every action is made from both an owner and a consumer perspective—the two are truly one and the same. Likewise, with regard to the other half of NTCA's members, those that are family or commercially owned and operated, again their focus is consumer-centric because they are locally owned and operated. And, very importantly, in both cases these companies exist to provide service rather than to generate owner value.

McDonough's top priority has always been to provide every one of our consumers, who are also our owners, with the very best communications and customer service

possible. McDonough has several lines of business, including ILEC, CLEC and ISP. Make no mistake—while our headquarters are in Colchester, we in fact serve over 3,400 customer lines across our 1,016 square mile rural service area that is spread across the western portion of the State of Illinois. This constitutes about 3.4 customers per square mile. We employ a total of 48 people and in 2010 our annual operating revenue was about $6.5 million. Our service area is rural and sparsely populated, requiring great effort to get advanced services to our customers. In our industry's parlance, as a small rural provider of this size, McDonough is a Tier 3 carrier.

Let me give you a quick snapshot of how McDonough compares with several other industry entities. Verizon, AT&T, and CenturyLink are classified as large, or Tier 1 carriers, and also operate in multiple states. Verizon has a workforce of nearly 194,000 and annual revenues of $106.6 billion. AT&T has a workforce of 266,590 and annual revenues of more than $123 billion. CenturyLink has a workforce of 45,000 and operates in 37 states. Clearly with operations of this size, the priorities, objectives, and sources of capital are generally far different from McDonough's community-based limited-scale approach to doing business.

The entrepreneurial spirit of McDonough is representative of our approximately 1,100 small rural counterparts in the industry, who together serve approximately 40% of the nation's land mass, yet about 5% percent of the population. Like the vast majority of our rural colleagues, McDonough has always been an early adopter of new technologies and services. McDonough currently has 5 Megabit broadband service available to 100% of our service area and we are currently working on a strategic network plan to deliver even higher speed services that our members are demanding. Rural Americans throughout McDonough's service area, and indeed throughout the markets of NTCA members, are enjoying universal voice service, access to broadband Internet services, and enhanced emergency preparedness.

II. Broadband Drives Economic Development

The American Economy runs on broadband. As the FCC stated in its February Notice of Proposed Rulemaking for Universal Service Fund and intercarrier compensation reform:

> Ubiquitous broadband infrastructure has become crucial to our nation's economic development and civic life. Businesses need broadband to start and grow; adults need broadband to find jobs; children need broadband to learn. Broadband enables people with disabilities to participate more fully in society and provides opportunity to Americans of all income levels. Broadband also helps lower the costs and improve the quality of health care. As important as these benefits are in America's cities—where more than ⅔ of residents have come to rely on broadband—the distance-conquering benefits of broadband can be even more important in America's more remote small towns, rural and insular areas, and Tribal lands. Furthermore, the benefits of broadband grow when all areas of the country are connected. More users online means more information flowing, larger markets for goods and services, and more rapid innovation.[1]

To not have access to high speed Internet in this day and age is unimaginable to most people, but as many as 24 million Americans—one in thirteen of us—live in areas where there is *no access to any broadband network*. According to the FCC's National Broadband Plan, 14 million people do not have access to terrestrial broadband capable of download speeds that "can support today's and tomorrow's applications," and such housing units are more common in rural areas.

The National Telecommunications and Information Administration's November 2010 report titled "Exploring the Digital Nation: Home Broadband Adoption in the United States" stated that home broadband usage went from 51% in 2007 to 64% in 2009.[2] Since 2001, household broadband Internet use has grown from 9% to 64%, an increase of more than 600%. Sixty-six percent of urban (metropolitan) Americans subscribe to broadband at home, as compared with 51% of rural (nonmetropolitan) Americans. If rural America is going to keep pace with urban America, then rural Americans need to understand the benefits of broadband and have affordable access to it.

---

[1] *Connect America Fund, A National Broadband Plan for Our Future, Establishing Just and Reasonable Rates for Local Exchange Carriers, High-Cost Universal Service Support, Developing a Unified Intercarrier Compensation Regime, Federal-State Joint Board on Universal Service, Lifeline and Link-Up: Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking,* WC Docket No. 10–90, GN Docket No. 09–51, WC Docket No. 07–135, WC Docket No. 05–337, CC Docket No. 01–92, CC Docket No. 96–45, WC Docket No. 03–109, FCC 11–13, at para. 3 (2011) (NPRM).

[2] *http://www.esa.doc.gov/sites/default/files/reports/documents/report.pdf.*

The economic benefits of broadband have been reported far and wide. Recent studies conclude that every one percentage point increase in broadband penetration in a state increases overall employment by 0.2% to 0.3% a year.[3] Further, an area moving from no broadband providers to one to three providers during the years 1999 through 2006 realized 6.4% employment growth on average.[4]

Consumers view broadband as an advantage: 66% of consumers see the lack of broadband access as a disadvantage in identifying job opportunities and gaining job skills, 62% see the lack of broadband access to be a disadvantage in obtaining health information, and 56% see lack of broadband as a disadvantage in using government services.[5]

The numbers demonstrate that broadband is being deployed to rural America. USDA's National Agricultural Statistics Service's August 2011 report on Farm Computer Usage and Ownership revealed that 62 percent of U.S. farms now have Internet access, compared with 59 percent in 2009. Broadband DSL is now utilized on 38% of U.S. farms. Dialup access on farms went from 23 percent in 2009 to 12 percent in 2011. Rural providers have made basic levels of broadband service available to over 90 percent of rural consumers in sparsely populated areas.

At the same time, USDA's Economic Research Service reports that over the course of the past decade the rural population has grown at less than half the rate of the metropolitan population. And as Chairman Johnson stated when he announced this hearing, many rural communities are experiencing "more deaths than births." Broadband deployment and adoption in rural America must increase at a faster rate in order to reverse the trend of rural flight. As more and more commerce, government services, and education moves over broadband, it will only become more important to provide this service to rural areas to bolster economic activity that will be necessary to attract and retain more Americans.

III. Universal Service/Intercarrier Compensation Reform

The Universal Service Fund (USF) and intercarrier compensation (ICC) have long played a role in supporting telecommunication services in rural areas. These programs enable a public-private partnership and have ensured that Americans living in rural areas of the country receive voice service comparable in performance and price to those living in more urban areas. However, the time has come to update these important network support mechanisms to ensure that all Americans have the opportunity to experience the benefits offered by a nationwide integrated advanced communications network.

Today, telecom providers and policy makers alike are shifting their focus from voice services to broadband, which offers the promise of being the great equalizer between rural and non-rural areas of our nation. Rural communications service providers are working to replicate the success of their telephone service build-out by steadily deploying broadband infrastructure and related services to an increasing percentage of their subscribers.

But this task is not easy, and more remains to be done. A typical self-sustaining business plan in an urban area is much more difficult to implement in rural markets. It is in these high-cost areas that universal service remains critical to overcome the economic challenges of deploying communications networks.

The Federal Communications Commission (FCC) is currently undergoing a proceeding to reform USF and ICC and may act as early as October on a final ruling. As part of this effort, the rural local exchange carriers submitted a reform proposal in April 2011, and later modified it to reach a Consensus Framework agreement with larger providers. This agreement advances the Commission's objectives for reform while targeting the current budget as a goal and adhering to the principles for universal service mandated by the Telecommunications Act of 1996.

The Consensus Framework reflects extensive discussions and development efforts among representatives of the nation's largest and smallest telecommunications service providers. It represents a landmark agreement among parties whose individual views of USF and ICC reform diverge greatly. Difficult and meaningful compromises were made in the negotiating process, as parties sought to promote broadband deployment and support network maintenance in a way that would meet Commission goals and restore regulatory certainty. Adopting the Consensus Framework will restore investor confidence in the telecommunications industry and better enable carriers to deploy broadband in rural areas.

---

[3] *http://www.brookings.edu/~/media/Files/rc/papers/2007/06labor_crandall/06labor_crandall.pdf.*

[4] *http://www.ppic.org/content/pubs/report/R_110JKR.pdf.*

[5] *http://pewinternet.org/Reports/2010/Home-Broadband-2010.aspx.*

If implemented as proposed, consumers and businesses in the rural areas served by rural rate-of-return carriers will see continued access to high-quality, affordable broadband services, without loss of access to quality voice services or unreasonable increases in rates. In addition, the plan will lead to increased broadband build-out to areas currently unserved.

While technological advances may help to reduce some costs associated with broadband deployment, it is still always going to be more expensive to serve rural America due to low population density, expansive distances, and often-rugged terrain. Without Federal policies such as universal service to ensure adequate and predictable cost recovery mechanisms for broadband, our national goal of universal broadband access may never be realized.

IV. Rural Utilities Service

Another important tool that has helped achieve broadband deployment in rural areas is access to financing from the Department of Agriculture's Rural Utilities Service (RUS). Many rural communication providers were at one time RUS borrowers and many continue to borrow from RUS today. There can be no question regarding the ongoing essential nature of RUS's telecommunication programs.Broadband is critical to providing access to economic growth, job creation, distance learning, health care, and national security in rural America. As noted above, millions of Americans still lack access to effective broadband. Therefore, the job is not done.

As Congress continues to grapple with deficit reduction efforts, it's important to note that RUS Broadband Loan Program and the traditional Telecommunication Infrastructure Loan programs are funded with loans that must be paid back with interest—creating a win/win situation for rural broadband consumers and taxpayers. To address other concerns with the program, including findings that some loans had been approved for areas that were not truly rural or unserved, Congress reformed the RUS Broadband Loan Program as part of the 2008 Farm Bill (new loans were not approved until these reforms were finally implemented in March 2011).

In addition, as a result of the regulatory uncertainty created by ongoing cost recovery reform proposals at the FCC, private lenders have become less willing to provide financing for rural broadband projects, which has further slowed broadband penetration in high-cost areas. Therefore, the RUS Broadband Loan Program and other RUS communications programs have become more vital than ever before.

We also would like to take this opportunity to thank Subcommittee Chairman Johnson for leading a letter in March of this year that encouraged the FCC to implement USF/ICC reforms in a manner that manages a provider's transition. In addition, the letter asked the FCC several important questions regarding the impact of such reforms on RUS borrowers' ability to repay loans. We appreciate your leadership on these important matters.

Rural providers have a history of working with RUS to provide modern communications infrastructure to rural America, and we look forward to continuing that partnership.

V. Government Role in Broadband Deployment

In my testimony thus far, I have outlined the status of broadband deployment in America today, and particularly how critical such deployment is to economic and community development. Additionally I have reviewed the commitment of rural providers to consumers throughout their markets and how essential the cost recovery mechanisms and structure they rely upon have been, and will be, to meeting their consumers' needs. And, finally, I have detailed the crucial reasons why reforms to the communications industry's cost recovery structure must closely adhere to the carefully crafted parameters of the industry's Consensus Framework.

Truly, we can all be proud regarding just how far our nation has come over the course of the past decade regarding the evolution of broadband and the resulting penetration and adoption of this technology and its related services. I cannot state emphatically enough that this success has only been possible due to the unique cooperation that has existed between the industry, the American people, and policymakers to make this a reality. Together, through a spirit of entrepreneurship, a can-do attitude, and a deep national confidence, the appropriate mix of programs and policies have been cultivated and maintained that ensure widespread broadband deployment and adoption.

This commitment and partnership will be essential to America's quest to secure and maintain a level of global broadband preeminence. To underscore this assessment I draw the Committee's attention to a May 2009 U.S. Government Accountability Office report (GAO–09–494) that, among other things, considers the Federal Government's approach to broadband deployment. In the study's opening remarks

it notes that according to government officials, "the Federal approach to broadband deployment is focused on advancing universal access."

The GAO report goes on to state that historically the role of the government in carrying out a market-driven policy has been to create market incentives and remove barriers to competition, while the role of the private sector has been to fund broadband deployment. It continues that under this policy, broadband infrastructure has been deployed extensively yet, doing so in rural areas is more difficult and in some instances gaps remain, primarily due to the limited profit potential associated with such initiatives. The Rural Utilities Service (RUS) Telecommunications Program and the high cost element of the Universal Service Fund (USF) exist to help fund advanced telecommunications infrastructure deployment. Industry stakeholders credit such programs with helping to increase broadband deployment—especially in rural areas—and that to achieve universal access, support of this nature will be essential in the future.

Despite the long history of success associated with these programs, a small but vocal minority of voices exists that refuse to accept this reality. Throughout this debate over the government's role in broadband deployment, the rural sector of the industry has routinely been directed to "think outside the box" in a search for more economical solutions to communications infrastructure deployment. If I do nothing else here today, it is my overarching desire to ensure that everyone participating and listening to this discussion ultimately leaves with the recognition and understanding that rural carriers always have and always will "think outside the box." Truly, they have no other choice.

What segment of the industry was the first to have completely converted to digital switched systems? What segment of the industry was a pioneer in providing wireless options to their hardest to reach customers? From what segment of the industry did the first company to deploy an all-fiber system come? What segment of the industry was the first to offer distance learning and tele-health applications? What segment of the industry was an early leader in providing cable-based video, then satellite video, and now IP video to their markets? What segment of the industry quickly moved into Internet Service Provision in the early stages of the Internet's public evolution? And what segment of the industry continues to lead in the deployment of high speed broadband capable infrastructure?

In every instance the answer to those questions is—the small rural segment of the communications industry. Many might be asking why these carriers care or have this unique perspective and approach to their mission. The answer to that question is relatively simple, because in the case of cooperative and commercially structured systems alike, the businesses are owned and operated by members of the local community. Clearly, these are entrepreneurs who care about their communities and their nation and obviously these are individuals who are continually "thinking outside the box."

It is obvious to the rural sector of the communications industry that the Rural Development Subcommittee has an appropriate perspective on such matters. As the panel with oversight responsibilities over the RUS, this Subcommittee has a long history of allocating the RUS Telecommunications Program in the manner best suited to ensuring rural needs are met. But there may be others with us here today that are not as familiar with this program and what it, the USF, and the rural sector of the industry have accomplished. I invite them to take a closer look at what is happening in my company's service area as well as throughout out state. McDonough Telephone Cooperative completed a network upgrade in 2003. This upgrade deployed fiber to within 2 miles of our rural customers. This upgrade was made possible by a $14 million loan from RUS. We are currently in the application process for a $15 million loan to take fiber to the home to our rural/rural customers. We began this process in May of 2009 and the engineering portion of the application has just been approved. Perhaps best of all, the Federal programs that have helped make this a reality have simultaneously helped ensure that all Americans can uniformly enjoy advanced communications connectivity that is comparable in price and scope.

There can be no doubt regarding the grave nature of the debt crisis confronting our nation, the interest of the public in appropriately responding to it, and the absolute necessity of doing so in a manner that is consistent with legal precedents and mandates. Yet the Federal response to this calamity has at times given cause for concern that solutions under consideration could harm rural America and hurt taxpayers when the full effect of cuts is accounted for.

Our concern first materialized upon reviewing the dangerous and defective recommendation in the December 2010 report of the National Commission on Fiscal Responsibility and Reform that identified the private USF and the venerable RUS as a source of public debt reduction. Some months later we were further troubled

to learn that Congressional debt negotiators were giving serious consideration to raiding the USF program. And in recent days our alarm has grown as we have learned that the Joint Select Committee on Deficit Reduction may also consider raiding USF as well as cutting the RUS program which Congressional appropriators in both the House and Senate just agreed to maintain.

With regard to the USF it is particularly imperative that policymakers and the public alike understand the unique nature of the federally mandated, yet privately funded and managed, USF. The USF has a long history and since its inception, has been maintained outside the U.S. Treasury and managed by a non-governmental entity. Were this private fund to be raided in the name of Federal debt reduction, it would amount to little more than a governmental taking and would qualify as a stealth tax on an unwitting public. Surely this is not the sort of deception the America people want or deserve.

Today we are on the cusp of fully moving into a world where data, video, and mobility are the primary objectives of consumers and voice will be secondary, or even an afterthought. Yet, regardless of whether consumers are focused on voice or some other form of communication, they will still require the underlying infrastructure to ensure their communication gets to its destination. The only difference is that with regard to broadband and advanced-services-capable infrastructure, the costs and subsequent need for support are even greater than they are for voice-only infrastructure. Thus, again I underscore the ongoing need for a strong USF and a vibrant RUS.

VI. Conclusion

America stands at a crossroads between a narrowband and broadband world. The choice is clear. The rural industry has long been the leader in deploying advanced telecommunications services to America's rural areas. The rural providers and associations are eager to continue working with you to move forward aggressively to fulfill the national objective of making broadband universally available as is envisioned by so many and indeed mandated by statute. Thank you.

The CHAIRMAN. I appreciate that. I am going to forego my questions and call on the Ranking Member to begin with.

I might point out that Mr. Schroeder, Terry McClennan in the audience, Joan Dyskter, district director, myself, as well as our staff are not only privileged to be here, we are making a major sacrifice by not being at the University of Illinois-Urbana Champaign watching the Fighting Illini demolish Western Michigan, and increase its 24th ranking in the country.

[Laughter.]

The CHAIRMAN. So, we are putting in extra miles here.

With that, let me introduce for questions, Mr. Jim Costa.

I will also say one of the beauties about colleagues from North Carolina, California, obviously Illinois and Pennsylvania, we actually have a Member from Alabama, Georgia, is just the opportunity to understand about these states, and agriculture specifically. And one of the things Mr. Costa has pointed out to me, and I am going to visit his district at some point, is what stone fruit is and how that is a component, and it is obviously a critical component of our agricultural sector. And so, that is the beauty of it.

Let me also point out before I recognize all my colleagues, and I am going to let them do the questioning. I point out this to the media. You know, my colleagues ask me sometimes, or my constituents ask me sometimes why do you all not get along? Why do you not stop the bickering? And I point out to them this. It is not news when people get along with each other. The news, the 24/7 cycle is when people conduct themselves in a street fight, a food fight, with each other. And to actually have this opportunity, and this is not just for show, this is for real. And to have these colleagues here with me, I just want to emphasize that there are people in Con-

gress who do get along with each other, who try to work together for common solutions.

And with that introduction and with my appreciation for his being here with us today, my distinguished co-Chairman and Ranking Member of the Committee, Mr. Costa of California, for questions of the panel?

Mr. COSTA. Thank you very much, Mr. Chairman. I could not agree with you more in terms of our working relationship. And maybe again we still hold ourselves up as an example on the right to legislate and do oversight. The oversight that we are doing is important, and I empathize with you are there in spirit with the Fighting Illini. I am tonight wanting to be with my Fresno State Bulldogs. They are in Idaho tonight. So, I will be flying somewhere over the country as they are playing the game.

I want to, Mr. Schroeder, focus and with other witnesses on the issue of where we are and how we expand our efforts on broadband, and the challenges we face, and what exists within the loan program, or the guarantee, or the grants with regards to both the USDA and other efforts and funds.

I was interested in your online program. You said you are in 12 countries. How do folks find out about Illinois, and how do you finance that?

Mr. SCHRODER. Excellent question. The adage in our field is that one finds online students online, and the converse is true; they find the University of Illinois online. So, if you type the words "online learning" into Google, even in Washington, D.C. where I was earlier this week, UIS will appear on the top four or five listings regarding online learning.

Mr. COSTA. The various courses you offer.

Mr. SCHROEDER. And then, of course——

Mr. COSTA. How much does that cost?

Mr. SCHROEDER. We use e-tuition, so the tuition online is very close to that which is required in state.

Mr. COSTA. How does the university finance it?

Mr. SCHROEDER. And each of the online programs is self-sustaining. That was a stipulation back when we began, yes.

Mr. COSTA. So, if I am one of those foreign students, I pay for it at a different rate than if you are a——

Mr. SCHROEDER. No, you pay the same rate, whether you are in North Carolina, California, or Illinois.

Mr. COSTA. What are the technological challenges that you face in expansion?

Mr. SCHROEDER. The challenges for us are not in the delivery; it is, rather, in the students. And I will note that, of course, the largest number of our students are in Illinois. The second largest number are in California. And those students——

Mr. COSTA. Good.

Mr. SCHROEDER.—we have a relationship with the——

Mr. COSTA. How can we provide better opportunities for you to expand your services?

Mr. SCHROEDER. It really is to provide access in rural communities so that students or prospective students there can sign up for our programs. If they do not have broadband, it will not work. You cannot do it with dial up.

Mr. COSTA. I have more questions. I will submit them later.

Mr. Bartlett, I loved your comment about we feed much of the world because we do. and something that regardless of what part of rural America you come from, it is part of our tremendous contribution.

You talked about wireless *versus* fiber optics, and not being one and the same, in the broad geographical area that you tried to provide access. How did you finance it?

Mr. BARTLETT. Well, our build out will be a finance completely privately as it goes right now. Now, what I said is we are working toward a consortium, so what our job is, one of the members of our consortium will be Mr. Fowler's company. He will be using USDA funds, funds that PPI utilizes, generally come from our cooperative banks, private sources.

Mr. COSTA. And you talked about leverage in your statement. You leverage the USDA funds with private sector funding?

Mr. BARTLETT. Well, what we are trying to do is leverage our members' rates that they pay to us to make sure that each one of their dollars goes toward more than one thing. It goes toward improving the environment, the smart grid. It goes to helping us control the electric system and helping people like Mr. Fowler and small telecom companies provide much higher bandwidth and broadband services.

Mr. COSTA. This goes for all of the witnesses as I quickly go through because my time is running out. Suggest to us ideas on how we can improve the RUS rural loan program and the guarantee program within broadband, as well——

Mr. BARTLETT. Very quickly how I would recommend right away is that we streamline it and that we get more local control of the program. Right now it is managed——

Mr. COSTA. You mentioned that in your statement. What do you mean by more local control?

Mr. BARTLETT. More local control in that these are very difficult businesses or communities sometimes to do business because they are small. And the local knowledge of where build out is needed and where it is not is so hard to obtain in Washington compared to in the counties in which these things are carried out. I think a closer participation with the State Director and the local USDA offices, and local cooperatives is key.

Mr. COSTA. You work pretty closely with your State Director?

Mr. BARTLETT. Yes, we do. We have an excellent relationship.

Mr. COSTA. Ms. Campbell, you talked about going from 5 megs to 10 megs and all the expansion of providing better health care for your——

Ms. CAMPBELL. Yes.

Mr. COSTA.—communities. How are you going to finance that?

Ms. CAMPBELL. It is going to be privately. We have partnered with our local communications provider. They have been willing to work with us financially, but it is private funds that will pay for that.

Mr. COSTA. And does that include your comments about the electronic medical records efforts? And what is your timeline to make that transition?

Ms. CAMPBELL. We hope to reach meaningful use by June of 2012. Right now, it is all private funding that has been invested to upgrade that technology. And then, we will apply for the RF funds by reimbursement.

Mr. COSTA. All right, Mr. Chairman, my time has expired. I have some additional questions, I appreciate the wonderful testimony that has been provided today and all your good efforts to make this a very substantive hearing.

The CHAIRMAN. Thank you, Mr. Costa.

And with that, I would call on the gentleman from Pennsylvania who has an update on the football scores.

Mr. THOMPSON. I do.

[Laughter.]

The CHAIRMAN. Mr. Glenn Thompson.

Mr. THOMPSON. Thank you, Chairman. Well, in the spirit of brotherhood and with good folks from Illinois who are playing, was it Western Michigan, Penn State is up 24 to 0 over Eastern Michigan.

[Laughter.]

Mr. THOMPSON. So, we have both sides covered.

I want to, Ms. Campbell, come back to, first of all, congratulations on what you have done using telecommunications for access to health care. It is an important issue for me. I actually have introduced, passed out of the House the Servicemember Telemedicine and E-Health Portability Act, which frankly is a piece of legislation I wrote with folks at the Pentagon after—we have a son and daughter-in-law in the 3rd Infantry Division. When I looked at the alarming rates of suicides——

Ms. CAMPBELL. Yes.

Mr. THOMPSON.—among our active duty servicemembers, those veterans, Guard, reservists, and it just relies on broadband access out to rural America.

And so, a couple of questions real quick. One is kind of an observation. We talked about the electronic medical records and meaningful use. You referenced that. And I know the answer to this, but I want you to say, what are the consequences to our hospital if you are not in compliance with the meaningful use requirement put forth under the Health Care Act.

Ms. CAMPBELL. The consequences are that our reimbursement for Medicare begins declining, and it goes in increments, but eventually you would not reimbursed by Medicare at all. Medicare is at our hospital probably 75 percent of our volume.

Mr. THOMPSON. Yes, which is paying 80¢ to 90¢ for every dollar of costs that you have.

Ms. CAMPBELL. That is correct.

Mr. THOMPSON. At this point.

Ms. CAMPBELL. At this point, this is correct.

Mr. THOMPSON. So it is incredibly important obviously——

Ms. CAMPBELL. It is.

Mr. THOMPSON.—this access to broadband. I actually was a manager in one of the first critical access hospitals, and you talk about the importance of access to high quality health care services. You know, with the reimbursement rates, which are—well, we just said

what they were. They do not meet costs. Smaller economies of scale.

Ms. CAMPBELL. Correct.

Mr. THOMPSON. You are limited by definition to the number of beds that you may have in terms of Census——

Ms. CAMPBELL. And the length of time they can stay, yes.

Mr. THOMPSON. And the tremendous government mandates that you have to respond to. How does broadband access help deal with those issues, the fund balance in the end?

Ms. CAMPBELL. First of all, access to high quality specialty care is excellent. We do not have the opportunity to have cardiologists, neurologists, orthopedics in our campus every week, so this access through broadband has been tremendous.

It also, though, helps contain some costs because we are able to access offsite providers that provide direction to our physicians, to our medical staff. Our physicians have also been able to participate in grand rounds, get additional education that has been very, very helpful. We have been able to provide also continuing education to our nurses and our staff where we do not have to send them offsite. And it has all been accomplished through broadband.

Mr. THOMPSON. Less down time, that is great.

Ms. CAMPBELL. Exactly.

Mr. THOMPSON. Congratulations.

Mr. Crum, one of the problems we face in this country of the citizens and certainly Members of Congress, we are too many generations removed from the farm. We do not understand where our food comes from, although there does seem to be a movement towards what I call farms to the family dining table where people want to have confidence in their food.

Using the direct marketing that you do with your beef, is that something that you are able to provide for public confidence when people reach out using that direct marketing, this is where your food is coming from, it is safe, it is high quality?

Mr. CRUM. Yes. The Internet has helped with that. We have a weekly newsletter. We communicate with our customers. We have You Tube videos, Twitter, Facebook, everything in the paper that I did not read is presented there.

But that one-to-one connection, having an 800 number and calling up at all hours of the day or not, having access to the owners is a very important tool because it puts confidence in the product.

Mr. THOMPSON. Thank you. Mr. Schroeder, I know we talked about earlier, I have a son and a daughter-in-law in the United States Army. They are doing their education online, and they are doing it no matter where they are in the world. It is pretty impressive.

Your testimony mentions the affordability of broadband access as a barrier to online learning. I am on the Education Workforce Committee as well, and so I was interested to see what your knowledge is. Are some of the tools required currently for online learning—eligible educational expenses for financial aid, computer connection fees, other expenses?

Mr. SCHROEDER. They are, yes. Right, yes. Those that are required for the courses, so if a course requires or a program requires the computer, then it is financial aid eligible.

Mr. THOMPSON. All right. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. I might point out that our spirit of cooperation between Penn State and Illinois and all the civility is going to come to a quick end when they play——

Mr. THOMPSON. They play in a couple of weeks.

[Laughter.]

The CHAIRMAN. In a couple of weeks, we are playing each other, and then you are going to see a food fight.

Mr. THOMPSON. Want to guess which side I am on?

[Laughter.]

The CHAIRMAN. I recognize the gentleman from North Carolina, my good friend, Mr. Larry Kissell.

Mr. KISSELL. Thank you, Mr. Chairman. And to all the folks who made this possible, staff, people at the university, our witnesses, my colleagues, thank you for this because it is very important. And I know there is a risk of overdoing the fact that this Committee does get along, but it is very important for folks to hear that when you do get along, you get things accomplished. And with our Chairman and our co-Chairman and colleagues, our concern, our love is rural America, and that is what unites us, whether it is the different parts of rural America that we see, that common element of rural America is so important to all of us.

Several important questions—Mr. Chairman, did I hear something about a Route 66?

[Laughter.]

Mr. KISSELL. I have a Route 66 sign in my house. I grew up with that love with the mythology of Route 66, and I could not help but notice coming in, flying in today the beautiful farmlands. And it reminded me of a trip that I took with my daughters in the Dakotas and Iowa and Nebraska. And my daughters would get so excited when they would see trees because they knew if there were trees, there were going to be houses in a town. And there is something beautiful about this land which I appreciate tremendously. And some of the names of the communities. I could regale you with terms of North Carolina from Abner to Uwharrie, but I will not do that today.

[Laughter.]

Mr. KISSELL. I have several questions. And, Mr. Bartlett and Mr. Fowler, we recently had the groundbreaking in North Carolina of around 1,200 miles, literally a highway of fiber optics that will encircle the state. And unfortunately there are still many counties that will not be there. Are you concerned about our ability, and Mr. Costa talked about the transcontinental highway. We know that the population went with where the railroad was. Are you concerned at all about creating a subdivision of have nots within our rural areas because they do not have access to broadband, especially to fiber optics in all of the hospitals, schools, universities, and things that will be associated with that? Are we creating a separate level of have nots?

And how do you feel about our ability to reach those areas? Either one?

Mr. BARTLETT. I would be happy to start real quickly because the story maybe moves from me to him.

There are communities of have notes, and Prairie Power being a long distance transmission provider, that is our role. We are moving in to take businesses like Mr. Fowler's and small communications companies from one market to the next that they cannot currently reach. That was the point of our consortium.

Mr. FOWLER. I believe he has basically answered the question, but we have seen some needs in some neighboring communities that we do not serve. And we have been able to use some local money to provide services, well, to Western Illinois University and Macomb. We have a 200 meg pipe into them.

We have connected all the schools in Macomb with fiber optics. These were needs that people needed that they required. They came to us and we saw an opportunity to provide the service.

In one of our latest ventures is we have taken fiber optics to two of the very large apartment complexes that service Western Illinois University. I believe it is 350 housing units that right now they are taking 60 meg and anticipate going up to 200 meg.

Mr. KISSELL. Well, I would ask everyone here, but obviously on our panel, to continue to feed ideas about how we can not have this subsection of have nots, because you talked about, Mr. Bartlett, just the vast geography of what you cover. We just got to watch that.

And, Ms. Campbell, are you concerned with—you talked about you all went to—and I am computer illiterate, but you went to one level of service and you had to have another, went to another level, now you have to have another. Are you concerned that we are going to be perpetually in a we cannot get enough, and there is always going to be something else we need, and we just will not be able to—even with the haves to be able to have enough service. Are you concerned at all about that?

Ms. CAMPBELL. I am to a certain extent. I think once I reach a certain level as our particular hospital, I probably will have adequate Internet service. I am small. But the larger metropolitan areas that continue to grow, grow, grow, their needs may continue to do that.

I do believe I will reach a level that I will be saturated and I will be fine. But it is just going to continue to grow and grow and grow.

Mr. KISSELL. So, that is going to be an ongoing challenge.

Ms. CAMPBELL. It is.

Mr. KISSELL. And, Mr. Schroeder, in my previous life before Congress, I worked 27 years in textiles, and the red light is flashing, so I will make this quick. I literally quit my old job on a Monday and started teaching high school on a Tuesday. They gave me a book and a key and said, good luck.

I took two online classes as a preparation for getting my teaching certificate. Neither one involved visuals or audio. The online classes, how can you tell me that the education for online class—not seeing a professor, not seeing other students—can be measured in quality and be as good as something that is more traditional?

Mr. SCHROEDER. We regularly run studies comparing the same faculty members teaching the same course on campus and online. And in fact, in many cases, we got superior outcomes online. Though mediating variables can be that the online students are a bit older, so a 35 year old may perform better than an 18 year old.

But in any event, with current technology, our emphasis is on interaction, engagement. They see the faculty member, many times have wide interaction in many of the online classes.

Mr. KISSELL. And just really quickly, it hasn't stopped yet. It is just flashing. Are most of your online courses that do involve a video back and forth between the students and the teacher?

Mr. SCHROEDER. All of them involve exchanges. I have not yet taught a class with fewer than 2,500 exchanges with 25 students in the class.

Mr. KISSELL. Okay. Thank you, sir.

Thank you, Mr. Chairman.

The CHAIRMAN. I now recognize my colleague and actually a former Member of the Illinois General Assembly, Mr. Randy Hultgren?

Mr. HULTGREN. Thank you, Chairman. Thank you for hosting this. And I want to thank the University of Illinois-Springfield for hosting this. It is just a wonderful facility, a wonderful place. And I really appreciate you doing this. This is a very, very important discussion that really is the start of a discussion that we need to continue. So, thank you so much.

I want to address my first question, Mr. Fowler, if I could to you. I think you had mentioned in your written testimony talking about the 24 million Americans who have no access to any broadband network. I wonder if you could expand on this a little bit and how wireless or satellite coverage plays a role. And from your perspective, what speed really is at least a minimally accepted speed for people to be able to survive and do business and be engaged in education?

Mr. FOWLER. I do not think there is any doubt that we need to concentrate on areas where people do not have any service today.

I believe that there is a complement between wireless and wireline and fiber and satellite. There are different tendencies to each one of those technologies. Satellite still has a latency problem, which I do not know if that is ever going to be cured. But there probably needs to be a stronger consideration for those areas that do not have any service.

From the rural standpoint, that is kind of where the USF and ICC has been helping address those problems or taking care of those problems for quite some time.

Mr. HULTGREN. Kind of getting into that next step of what really does start it? Is it private investment that really gets this going with assistance of public investment? Does it really have to be the public sector, do you think, or through governments, or some of these agencies, and some of the grants that are out there? Is that what is really going to start us to the next level? From your perspective, what is the key to get the funding that will take us to address this glaring problem with 24 million people without adequate access to broadband?

Mr. FOWLER. Well, unfortunately there is not a good business model for a lot of these areas. And getting private funding for that is probably going to be extremely difficult. There is not going to be a huge opportunity for a lot of profit taking in those scenarios. So, it is going to take a jump start from the public sector to get this going.

Mr. HULTGREN. Thank you.

Mr. Crum, I want to just talk a little bit—I am interested in the amazing growth of your company, but also just been very interested and have been working on the Agriculture Committee quite a bit with the shift of how producers have really almost prepared the new insurances—hedging and using the commodities markets. I also know that is key in very rural areas if you are going to be involved in hedging or commodities, working with that as almost an insurance policy of uncertainty from year to year.

First of all, has you company been involved in that, and do you have adequate technology to be able to be involved in that? Does that make sense?

Mr. CRUM. In hedging in particular?

Mr. HULTGREN. Yes.

Mr. CRUM. Currently we are not. I am not saying we will not be in the future, but it is a commodity and it is a volatile commodity in this day and age. And that is how you protect yourself with risk tools. But our producers as a general rule, the people that we buy products from, they do not.

It is apparently a low input system with grass and fencing and rotational grazing that produce the product itself. We then assimilate it and put it out to the general consumers through the Internet. But currently we do not use any hedging, no.

Mr. HULTGREN. With the people that you are using, the firms that you are using, or those that are near you, can you share any experiences that they have had in accessing risk management tools from their farm? Has that been a part of it really, or is it really more the——

Mr. CRUM. It has not really been that big of a part of the risk management tools. As a general rule, these are established farms, and this is a fairly low input system with not very many high agriculture inputs as we are used to today. And mainly farm family operations that market their products through us.

Mr. HULTGREN. Thank you.

Mr. Schroeder, with the little time I have left, I wondered if I could ask you a little bit, we talked some about the benefits of opening up education to rural areas and students who would not have access to coming to the schools. I wonder if you could just give me a feel for what you see some of the benefits to the institution, to the university, by having this new relationship.

Mr. SCHROEDER. It is so important to us to be able to put together classes that represent a diversity of views. Our emphasis in so many of our online classes comes on discussions, case studies, analysis. And if we can bring to those classes a rural point of view, not just an urban point of view, our classes are enhanced.

Mr. HULTGREN. Let me ask you on that, too, does it also open up opportunities for professors that maybe would not have access, too. I wonder if you could just share a little bit about that as well.

Mr. SCHROEDER. Yes. It certainly is two ways. And, in fact, just recently, literature has been published on access for faculty members with disabilities who cannot meet all the time, cannot make all the classes on campus. And this facilitates some who might be hospitalized part of the year, can then continue to teach their class-

es. And, of course, it allows us to bring faculty members on a visiting basis from other states around the country.

Mr. HULTGREN. Again, thank you all. I appreciate you being here today. So thankful to the university and the Chairman for putting this together.

The CHAIRMAN. The last Member, certainly not least, my colleague, who actually represents Sangamon County, Bobby Schilling?

Mr. SCHILLING. Thank you, Mr. Chairman.

First, I want to say is this is music to my ears because I hear a lot of private sector jobs here, across the board, and I think that is totally awesome.

I want to start out with Mr. Fowler. I have Henderson, Mercer County, Warren County. And I go to the school districts there. And I tell you, they are struggling because they do not have what other school districts have across the United States of America. And their concern, which I believe is legitimate, is that they are going to continue to fall behind. And with the budgets, as we have across America, specifically here in Illinois, we have a huge mess here.

And I guess, what are we doing maybe to try to help those areas out, or what can we do to try to give that jump start, so to speak, and have those people reach out to you maybe?

Mr. FOWLER. Well, our local school districts, we provide 5 meg connections. And as far as financing, I think possibly that could be shared between the state, the companies, and the Federal level. You know, between the three, a combination could probably help support that.

I do not think we serve the schools in those counties, but possibly they might want to go to their provider first and see if they can offer some assistance to get them the broadband connections that they need.

Mr. SCHILLING. Okay. And then quickly, rough idea of how much the cost of basic service is to a person?

Mr. FOWLER. Our lowest package is a 1 meg package that is $39.95 a month. And we offer residential packages up to 5 megs, up to $64.95. And we discount that if they bundle it with additional broadband services. We also offer a video product. So, that is just the range we are selling it at, yes.

Mr. SCHILLING. Okay, very good. And then, I just want to hit over here to Mr. Crum.

Your company, sir, since you got the Internet straight and around, roughly the amount of jobs that increased with your company?

Mr. CRUM. Currently there is roughly nine to ten full time equivalent employees. That includes the office staff and then the packing staff. The fabrication and killing is all custom hire, and that is not included in that.

Mr. SCHILLING. Right. Yes, very good. And that has spin off would be, of course, great also. So, very good. Just kind of curious on that.

And then, this is kind of like speed dating.

[Laughter.]

Mr. SCHILLING. Though I have never done that before.

[Laughter.]

Mr. SCHILLING. But, Ms. Campbell——

Ms. CAMPBELL. Yes?

Mr. SCHILLING.—a couple of things I have for you is as you reduce costs and increase your capacity through telemedicine, does that free up capital to do other things?

Ms. CAMPBELL. Yes, indeed. Renovation to our facility is one our strategic goals within the next 18 to 24 months. And this should help free up some capital for us to a certain extent.

It also opens a lot of opportunities with the advancement of technology, smart phones and iPads, to actually place those types of tools in patients' homes where they can connect directly with their primary care physician or the specialist. Also, our EMT providers when they are in the field, they can literally use a smart phone. We do not yet have that capability, but we have seen it. They can then connect to a physician to actually get a scan of the condition of the patient. That is life-saving technology.

It is also cost saving technology. So, the more connectivity that they have and the more technology and tools that they can use, it should just help advance the medical care of the patient, and hopefully reduce costs, which we know reducing the cost of medical care is one of the biggest things for the government today.

Mr. SCHILLING. Yes. And you have done a pretty darn good job with telemedicine. I mean, everything that I have read is phenomenal with what you guys have done with it.

And I do not know if you know this: How many rural hospitals have been able to achieve what you guys have done?

Ms. CAMPBELL. Within Illinois, I have more knowledge of the critical access hospitals. There are 51, and I would say probably at least 75 percent of them are using some form of telemedicine whether teleradiology or actually telemedicine within their ER departments.

Mr. SCHILLING. Okay, very good. Yes. You know, I live in a rural area, so I know how important those are. And I also have some slow Internet, but anyway.

Ms. CAMPBELL. But anyway.

Mr. SCHILLING. I appreciate your answer.

And then, Mr. Schroeder, you were telling the story about your daughter. I think that that's something that is imperative, and it is back to where I kind of started out with here is the fact that these are jobs. These are private sector permanent jobs that this is what our country needs, things that are going to be long term, not some short term things that are just going to be burdening our kids and our grandkids long term. And the key here is that these create taxpayers that pay in, which help make a lot of our problems in the United States of America go away.

But I just want to say that it has been an honor to be here at this facility. This is a great facility, and we look forward to coming back. And thank you for having me, Mr. Chairman.

The CHAIRMAN. I am going to go on with maybe a couple more questions, but also mention with the five witnesses here, Bob, my good friend, who has joined me in saying that one of the witnesses, that several years ago would have been extraordinary years of Senator Vince Demuzio, who was extraordinarily directly involved in

this whole arena. And obviously his presence and his role in this area is something we will feel for generations.

I have no intentions of asking any more questions. Mr. Costa said likewise. We do and be glad to take any other questions people have. We do have a little quick media session afterwards, and then we are going to start our tour around 2 p.m. or thereabouts. So, hopefully we can wrap up accordingly.

With that, I recognize whomever wants to ask a couple more questions. Anybody have anything? More questions?

I am going to do a quick closing statement, Mr. Costa likewise, and then we will wrap it up and go from there.

I think we may have on this panel or on the Subcommittee, the full Committee, a variation from time to time on some issues, maybe even the stimulus bill that was passed 2½ years ago. But regardless of our position on that issue, I think we can all agree with this: rural America faces a critical time, and broadband service, postal service, economic development in small town rural America is critical in the judgment of all of us to the future of America. This is one element of it.

I think we can also agree that regardless of whether the stimulus was or was not a good idea, that a loan approval process and application process, funds that were intended for small towns that wind up in big cities, the lack of capacity is something we all want to address because it is in our common interest. And that is what we are about, is common bipartisan solutions to the crisis that rural America faces. And we want to do what we can as Members of the Committee, you all, and certainly as Americans, to try to arrest the potential decline of rural America.

So, with my thanks again to that, turn it over to the Ranking Member, Mr. Costa, for his closing remarks.

Thanks to all the panel. Terrific audience. Great witnesses, and a great university for their being willing to host us for what I think is a real privilege for downstate Illinois.

And with that, Mr. Costa?

Mr. COSTA. Thank you very much, Mr. Chairman, for bringing this Subcommittee hearing to, as I said in my opening statement, to the heartland of America.

The University of Illinois here at the campus in Springfield, we really appreciate everything that you are doing, and being a co-host for us today to hold this Congressional hearing. It is a wonderful campus, and it is a reflection of the tremendous universities that we have throughout our country. And I know that Chairman Johnson is very proud to have a chance to bring the Subcommittee here to hold the hearing on this campus.

I think the testimony today by our witnesses really points out the need to build on what we have developed so far because we know that the way of the future for rural America is to be able to effectively compete on a level playing field. And that level playing field is the Internet, and the way that we provide access to the Internet is through the broadband that allows every American the same opportunities to be educated, to communicate, to do business, to provide all the functions that are really a part of this global economy that we live in today.

So, as we look at reauthorizing the 2012 Farm Bill, we will take very carefully under consideration the suggestions that you have made here today. I know that Chairman Johnson and my colleagues here in a bipartisan fashion feel very strongly that one of our most important parts of our job is to advocate on behalf of rural America because those are our constituencies, and those are people that we represent. So, their voices must be heard through our voices.

So, as we look at the RUS rural telephone loan and loan guarantee program, the broadband loan program, how we look on providing greater local control, as was suggested, as we look at dealing with the challenges of start-up business, when you want to provide good quality foods for our entire nation, that you have the opportunity to have that level playing field.

So, Mr. Chairman, I want to thank you again. I want to, most importantly, thank our witnesses and all that were a part of this effort. You noted on several occasions that our staff did a terrific job in making this hearing a reality. They always do. Frankly, if it weren't for them, we would not be able to make this happen. So, I, too, want to commend the Majority and Minority staff that came to the Springfield campus for the University of Illinois to make this hearing a reality. Thank you, thank you, and thank you.

Thank you, Mr. Chairman, for the terrific job you do. I am honored to serve as the Ranking Member on your Subcommittee, and we all look forward to working together as we reform the 2012 Farm Bill, and make sure that rural America is an important part of that farm bill.

Thank you very much.

The CHAIRMAN. Thank you, Mr. Costa.

Under the rules of the Committee, the record of today's hearing will remain open for 30 calendar days to receive additional material and supplementary or written responses from the witnesses to any question posed by a Member.

So now, with, again, my appreciation, this hearing on the Subcommittee on Rural Development, Research, Biotechnology, and Foreign Agriculture is adjourned.

[Whereupon, at 1:49 p.m., the Subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED STATEMENT BY DREW CLARK, EXECUTIVE DIRECTOR, PARTNERSHIP FOR A CONNECTED ILLINOIS

Good morning, Chairman Johnson, and Members of the Subcommittee.

The deployment and adoption of high speed Internet services and information technology has resulted in enhanced economic development and public safety for Illinois's communities, improved healthcare and educational opportunities, and a better quality of life for Illinois residents. Continued progress in the deployment and adoption of high-speed Internet services and information technology is vital to ensuring that Illinois remains competitive and continues to create business and job growth.

Partnership for a Connected Illinois, also known as BroadbandIllinois, is a 501(c)(3) nonprofit organization with a three-fold mission: (a) to collect and publish broadband data; (b) to ensure broadband access throughout the state; and (c) to maximize broadband's impact and use.

The PCI is the nonprofit association authorized under the High-Speed Internet Services and Information Technology Act (Public Law 95–684, enacted in 2007) through a contract with the Illinois Department of Commerce and Economic Opportunity. The Partnership for a Connected Illinois is the designated entity by the National Telecommunications and Information Administration (NTIA) under the State Broadband Data and Development grant program.

The Act sets forth the goals of the Illinois' high-speed Internet deployment strategy:

- Ensuring that Illinois residents and businesses have access to affordable and reliable high-speed Internet service;
- Improving technology literacy, computer ownership, and high-speed Internet use among residents and businesses;
- Establishing local technology planning teams to plan for improved technology use; and
- Establishing and sustaining an environment that facilitates high-speed Internet access and technology investment.

At PCI, our activities are based on the Illinois General Assembly's findings that these efforts will result in enhanced economic development and public safety for our communities, improved health care and educational opportunities, and a better quality of life for Illinois residents.

PCI works in partnership with the State of Illinois to ensure that Illinois remains competitive and continues to create business and job growth.

PCI also works collaboratively with broadband providers and local leaders to ensure their communities benefit from high speed Internet access.

In conjunction with the NTIA, PCI also develops a statewide inventory and map of existing broadband services and capabilities, and works to enhance the adoption of Federal and state investments in broadband to ensure they are sustainable.

Both the Federal and state governments have had the foresight to advance investment in broadband technology. Many areas are well-served by existing broadband and telecommunication carriers. And in many places, particularly larger cities, there is robust competition. However, businesses and service providers are just beginning to scratch the surface on how broadband Internet service can be of benefit to consumers.

PCI' s efforts are therefore also focused on ensuring that communities in Illinois understand how they can maximize the value of this technology in accordance with Federal Communication Commission's seven purposes: Jobs and economic opportunity, public safety, telemedicine, energy conservation, education, civic engagement and government performance. PCI is also focused on ways that broadband can assist rural Illinois and benefit agriculture.

We are also beginning to see competition in some of our smaller communities. For example, where Verizon previously chose not to provide broadband service, its successor, Frontier, is now ambitiously offering competitive options.

In many areas of the state, however, there is a lack of what we call middle-mile fiber. You could liken this middle-mile fiber to electric transmission lines that serve a variety of electric customers through investor-owned utilities, municipalities and electric cooperatives. Each has a role in transmitting bulk quantities of electricity to electric utility systems throughout Illinois. Some of these electric providers would not exist without the foresight of elected officials who created the Rural Utilities Service or pioneers in municipalities who wanted their residents to enjoy the benefits of electricity for their homes and businesses. In many respects, the goal of providing broadband service to rural Illinois is similar to rural electrification efforts of the 1930s.

Just as we know electric service enables commerce to develop in our communities and state, so too will broadband Internet service. Better broadband means better lives.

Historians recognize that Abe Lincoln once exhibited a passionate interest in infrastructure improvements as a means to overcome obstacles to equal opportunity and commerce. Broadband infrastructure and deployment is the mission of our time.

PCI is helping to coordinate public and private partnerships, with a goal of filling the gaps necessary to link our communities to the rest of the nation and, indeed, the world.

Allow me to share but a few examples of Federal and state investments are will enhance the quality of life:

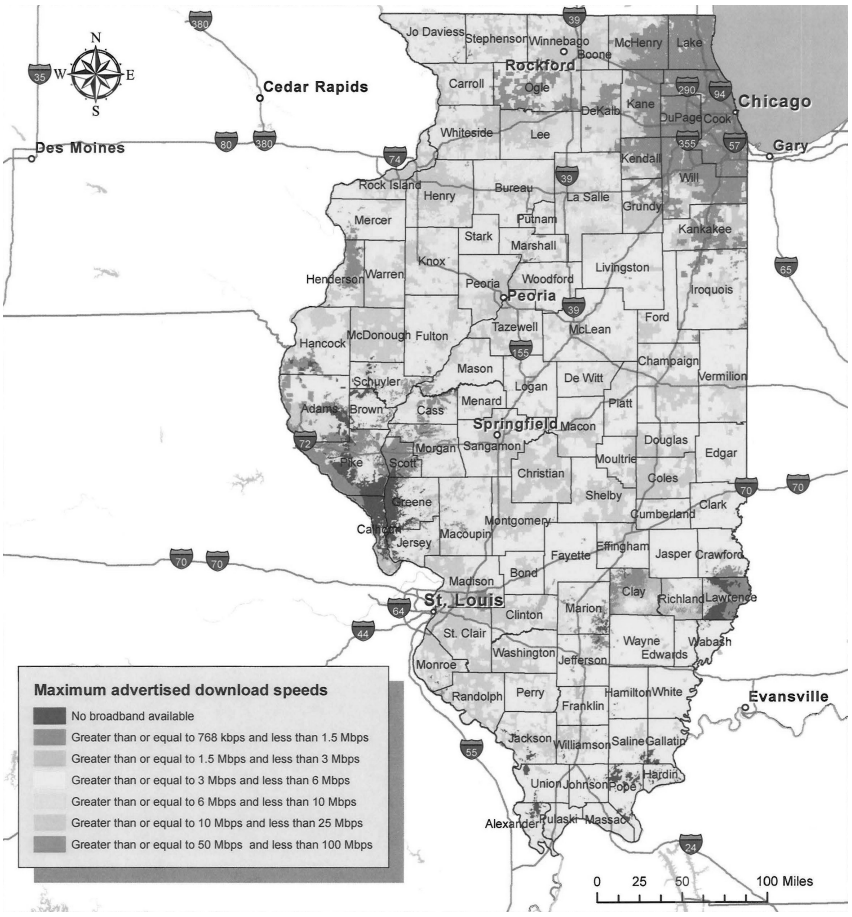
- In the northwestern part of the state, Northern Illinois University is working with community leaders, schools, healthcare providers and public safety officials to install 870 miles of fiber that will be available for broadband deployment.
- In southern Illinois, Clearwave is installing 740 miles of fiber that will connect communities in 23 counties. This investment in broadband infrastructure is deemed vital to the future success of Southern Illinois University and promises to revitalize the economy in the southern region of our state—creating opportunities that otherwise might not have been envisioned.
- In far southern Illinois, the Shawnee Telephone Company serves among the most disadvantaged areas of the state in terms of health care and economics. Many of its schools no longer offer options like foreign languages or chorus or band. The closing of coal mines has taken its toll on these communities. Imagine the difference broadband can make with the installation of fiber optic cable, which promises to bring distance learning and advances in health care to help the region achieve prosperity once again. Broadband infrastructure in Gallatin, Pope and Hardin Counties can equate to prosperity and progress in these communities and has the potential to lead to new economic development opportunities.
- The Connected Living program in Cook, Kankakee and Will Counties is offering Internet training to citizens with disabilities and seniors so that they may participate in commerce, on-line learning, manage their utility bills and become more involved in community and government activities.
- The Smart Communities Program is a joint venture of the City of Chicago, Chicago Public Library Foundation and Chicago Community Trust to promote comprehensive technology adoption among 270,000 residents and small businesses in five pilot digitally-underserved Chicago neighborhoods.

In summary, our objective is ensure that broadband and high speed Internet are available for all Illinois citizens so that they may benefit from broadband and technology advancements that otherwise might not be available to them.

DREW CLARK,
Executive Director,
Partnership for a Connected Illinois,
Springfield, IL.

ATTACHMENT

Illinois Broadband Coverage



This map represents wireline and wireless broadband availability at several tiers of maximum advertised speeds, and areas with no broadband coverage.

Green represents the highest speeds. Orange represents the slowest speeds.

Created by: Ruben Clark, GISP.

SUBMITTED STATEMENT BY ILLINOIS FARM BUREAU

September 21, 2011

Please accept these comments from Illinois Farm Bureau® on the important role of broadband access in rural economic development.

Illinois Farm Bureau is a nonprofit membership organization representing more than 75% of farmers in Illinois. Those farmers, along with our associate members, make up our more than 420,000 members.

Agricultural producers, being rural in nature, are typical of the rural residents that stand to benefit from improved access to high-speed Internet. Growing reliance on digital/electronic transfer of data makes access to high-speed Internet a necessity. More and more units of local government, businesses (including farming), education and health care providers are communicating electronically.

Farmers are facing a number of proposed changes in the distribution of information necessary to operate their business. These changes include a switch from hardcopy distribution to delivery through online services. Farmers that are either unserved or underserved are facing significant efficiency challenges when considering the benefits broadband offers, including:

- EPA considering rules allowing a move towards web-based label information for some pesticides
- Government farm programs and applications moving to online distribution
- Up-to-date market information provided electronically
- Purchasing and ordering farm supplies through online services

Our policy, established by our members, calls for:

- Opportunities to work with rural electric cooperatives, telephone cooperatives, and other entities that have existing infrastructure and expertise to provide broadband service to all rural areas. We encourage these entities to use grants and other sources of monetary assistance to provide these broadband services.
- Support for increased sources and levels of funding for developing and expanding broadband telecommunications service to rural areas.

While building infrastructure is a key part in improving access, additional hurdles to establishing more private projects and carriers are adoption and utilization in rural areas. The Federal Communication Commission (FCC) reports in their Nation Broadband Plan that 22% of non-adopters claim "digital literacy" as an obstacle to broadband adoption. The report states that an additional 19% of potential users do not feel information delivered over broadband is useful to them.

As a result, adoption and utilization barriers have the potential to reduce the number of "customers" in rural communities where potential users are already limited due to sparse population.

By addressing adoption and utilization concerns through education and awareness in rural areas, private providers will gain a stronger "customer" base. Creating demand provides incentives to private providers and the opportunity for price reduction for service in rural areas.

Other needs as we see them include:

- Efforts to increase adoption and utilization of broadband in rural areas
- Development of public and/or private training and consumer education programs targeting rural residents

Thank you for the opportunity to comment.

Sincerely,

Illinois Farm Bureau.

○