

MS. VERNATTER: Good afternoon. I am Kay Vernatter, I am the acting state director for USDA rural development in the State of Nevada. It is my pleasure to welcome you. And an additional welcome to everybody who is viewing over the Internet and is listening via teleconference.

The City of Las Vegas and the great state of Nevada and the Charleston Heights Arts Center additionally welcome you to the State of Nevada. Nevada is one of three sites which public forums are being held on the broadband initiative under the American Recovery and Reinvestment Act.

Sites being held are here in Las Vegas, in Flagstaff, Arizona, and additional sessions will be held in Washington, D.C. I want to thank you all for being here. I would like to thank the panelists for being here. And USDA Rural Development is

cohosting the broadband initiative events and the public meetings with a Federal Communications Commission, the Department of Commerce.

And it is my pleasure to introduce Mr. Mark Siefert, senior advisor to the Assistant Secretary of Commerce. Mark.

MR. SIEFERT: Thank you so much.

It's very nice to be here in Las Vegas. We are having a series of public meetings where we're seeking public input on how to put together two programs that were passed into law by Congress as part of the stimulus package.

Those two programs we're referring to generally as the broadband initiatives. And they're housed in NTIA which is the -- we like to say we're the President's advisor on telecom. And it's housed in the RUS which is a division of the United States Agriculture Department.

It's very exciting for us to be

working together, RUS and NTIA, to ensure that these programs work together, that they make sense, that applicants understand how the two work together. And we need your help in doing that.

So tonight we have a panel of five guests and two will be showing up shortly. They are stuck in traffic. But I'm going to go ahead and introduce each of them. And we'll start with the folks who are on the stage.

First is Jerry Sandstrom who is with the Nevada Commission on Economic Development. He is the deputy director for that organization. And Jerry has been a key figure in economic development in the Las Vegas Valley for 24 years.

He was instrumental in bringing marquis companies like Potlatch, Ford Motor Credit, and Georgia-Pacific to Southern Nevada. And other Henderson companies like Ocean Spray, Levi

Strauss, Hydro-Craft, QEP, and Your Other Warehouse.

Before he was with the Nevada Economic Development Commission, he was the vice president of client services for the Nevada Development Authority for 23 years.

Next we have Jeff Fontaine. Jeff has been the executive director of the Nevada Association of Counties since January of 2007.

His background as director of the Nevada Department of Transportation and his experience as -- in public service as the Nevada state drinking water administrator and environmental engineer for the United States Environmental Protection Agency put him in good stead to work with counties and help them meet their goals.

Our next guest is Gary Longaker. And Gary is the executive director for Nevada Rural Housing Authority. And he's been such since July of 2003.

Gary served in the military and is retired from the U.S. Army.

Before this he was the executive director for the State Housing Finance Agency in Oklahoma and the architect that built OFA from the ground up to a nationally recognized and respected housing finance agency. Our two other guests who are going to be joining us shortly are Karen Twenhafel who is a senior consultant with Telecom Consulting Service. She represents four of the eight tribally owned telecommunications company in the country and serves on the board of directors for the National Tribal Telecommunications Association.

And our last panelist tonight is Valerie Fast Horse. Valerie Fast Horse is an enrolled member of the Coeur d'Alene tribe of Idaho and is a descendent of the Okanagan band of Indians of Vernon, British Columbia. She also enlisted in the U.S. Army and served active duty in the reserve

for a period of ten years and it was during this time that she became interested in information technology. She is currently serving as the director of information technology for the Coeur d'Alene tribe and is also in serving in her second term on the council.

I would also like to take this moment to thank a staff member of Senator Ensign, your senator here in Nevada, Judy Flynn, who has joined us. We appreciate her support. And I'm sure she is glad that you're all here participating.

So our first panel tonight is going to be discussing reaching vulnerable populations, driving demand, and the role of strategic institutions

And so now I would like to turn it over to our panelists. And they can give us our opening statements basically.

And just so you understand how the program is going to work, first our

panelists are going to speak for three to five. If they speak longer than five, I'll start getting grumpy and that sort of thing. But they're going to talk for a little bit.

And then we're going to take the next 30 minutes or so and have them interact with each other and kind of react to what the other is saying, although Jerry has already said he agrees with everything that Jeff is saying or going to say so that should cut down a little bit on it.

And then we're going to open it up to the public.

Now, tonight we're joined not only by members from the Las Vegas community and from folks on the West Coast, but we're also joined by folks watching live on the web. We are streaming this.

And you can find the link on NTIA's web site. And for the folks who don't have access to broadband or don't have access to broadband in

their home, we have the option of a teleconference number where folks can dial in and participate that was. So I want to welcome all of our guests. And I want to turn it over to our panel. And, Jeff, you can start, if you would like.

MR. FONTAINE: Okay. Well, first of all good afternoon. And I want to thank USDA Rural Development and the Department of Commerce for holding this hearing in Las Vegas and for inviting me to be a part of the panel.

And on behalf of my association, I want to welcome our out-of-state guests to Las Vegas and to Nevada. Just quickly about my association, the Nevada Association of Counties, we're a nonprofit, nonpartisan state association that represents county government officials and their staffs. And all 17 counties in Nevada that are members.

I think it's important maybe as the

sort of leadoff speaker here to talk about and maybe get a lay of the land at least in my state of Nevada. We have a lot of unique characteristics, but we also have a number of things I think in common with other states, particularly those in the intermountain west. We're the seventh largest state in area-wise, but we're also the most urbanized state in the nation. Better than 85 percent of the state's population lives in the two urban areas of Las Vegas and Reno and then the remainder of the population, maybe about 250,000 people, are spread out among many smaller towns and cities. Most of those cities are located along the interstate highway routes, the U.S. highway routes. And then we have a lot of smaller communities and ranchers and small enclaves of folks that live in very remote areas of the state.

And until last year, Nevada led the

nation for main years in population growth. And that population growth most certainly occurred here in Las Vegas to a great extent but also occurred in a lot of the rural counties, Dayton in Lyon County, Nevada, up north, Mesquite here in Clark County are small areas that grew very much in their population in terms of percentage.

The other aspect of Nevada that's really important is that we have the largest percentage of federally owned lands of any state in the nation.

Better than 85 percent of this state is owned and managed by various federal agencies such as Bureau of Land Management, the Department of Defense, the Forest Service and in some counties that percentage is 95 percent of the land.

So I bring that up because it's problematic in many cases to -- or challenging I should say to permit a lot of the infrastructure that's

associated with what we're talking about today, telecommunications.

So, you know, burying wires, erecting towers, those things can be rather challenging.

Now, in preparing for the discussion today, I tried to get a sense of just where we are in Nevada with respect to broadband access. I read a number of reports and I guess I wasn't surprised.

And I assume this is pretty much true, that we have -- a relatively low percentage of our rural population has access to broadband. In the urban areas here in Las Vegas and in Reno, I think that there is pretty good access. I think there are a number of providers that are competitive, service is generally good, and the prices I think are also reasonable.

When it comes to rural areas, however, I think it's really a patchwork of providers, where there

is service. I know that I get emails, for example, from a number of members of my association that live in rural areas. And I assume that they're doing that as part of a wireless network or some satellite system. And I'm also assuming that it's probably pretty slow and probably pretty expensive as well. We do have fiber lines that run along the major highway corridors in the state. They were installed as part of the dot com boom five to eight years ago.

So we've got long haul fiber along Interstate 80 from state line to state line, we have it north to south. It's really fiber that's part of the national backbone system and was really installed to connect large cities primarily outside of Nevada. I believe we do have connection points or POPs along those corridors. They were required to be installed when the fiber was buried. There are

some communities along the way that have taken advantage of those connections and others that haven't for various reasons, and I'm guessing that it's probably cost.

And, you know, as far as the demand for broadband access in this state, I don't think there's any question about demand. It's already being used to a limited extent, including in the rural areas.

I know that there's videoconferencing out there, for example. There's even some ITS or intelligent transportation system applications along some of the rural highway corridors. And, you know, I just believe that there's really no shortage of need or applications. I think it's just limited by access. Now, Nevada has been hit especially hard with the current economic downturn. And there are a high number of foreclosures, there's high unemployment, and a decline in many

businesses including our mainstay businesses and major businesses such as gaming and tourism.

There are a lot of communities out there that are really struggling and a lot of them are rural communities.

But what we've seen in all of this at the state level, at the community level, you know, we're all affected, families, individuals.

But I think all of us in this state are really taking this as an opportunity to reevaluate where we are as a state in terms of our economy and our future.

And one of the things that seems to have emerged from all this is that Nevada is really blessed with solar wind and geothermal resources.

And I think we're really getting poised to move our economy and do -- be a major producer of renewable energy.

Now, there is a lot of work that needs to occur before all that takes

place. But I can tell you that we have plans already to build renewable energy -- a renewable energy grid connecting various renewable energy zones, the various geothermal resources, solar and wind resources across the state. And this includes connecting them to the major transmission lines that will be built as well.

So I've got to believe that in all of this that broadband access is going to be an important part of that in terms of the evolution of Nevada's economy from what has traditionally been a service economy to now hopefully a technology-based economy. Beyond renewable energy, you know, I would see broadband access as a valuable tool for managing the vast lands that we have in the state, the public lands and other resources including mineral exploration, mining is important economic activity in the state, wildlife, you know, I see

potential applications there.

And all of these things are important not only to the economy but the way of life in our state. There are a lot of other businesses that are starting to really prosper in this state or at least they did until the recent economic downturn.

But, you know, agriculture is still a viable industry, light manufacturing, warehousing.

Again those are all business applications that would benefit from broadband access. Besides that we have a need for things like e-learning, telemedicine, and just access to an overall quality of life.

Now, In a lot of these rural communities, we're not going to see health clinics coming out there and opening up, we're not going to see new schools or community colleges.

So really connectivity and access to broadband I think is the way that these communities maintain viable and

healthy -- and I know that there is some concern or at least some folks have expressed concern about, you know, once you connect the rural community to broadband, it really changes the character of the community, the culture of the community.

I don't see that, I don't believe that. I think that it doesn't change the character and culture of the community, I think it enhances that.

MR. SIEFERT: Jeff, if I can get you to wrap up, I want to make sure everybody has a chance to speak.

MR. FONTAINE: As far as where we need to go, I think it's going to require a strong partnership at all levels of government, federal, state, local, no one can do it alone, the private sector obviously.

And it's clearly not going to be one single technology that's used. Fiber has got limited application in this state.

And the last thing I just mention before I conclude is I don't -- or I do want to emphasize the importance of the permitting process, both at the federal level in terms of getting these technologies on the ground as well as at the local level, because you're going to be using in many cases public rights-of-way, you're going to be dealing with zoning issues and things of that nature. So there's an important part there.

And with that I will just say that we're very excited about the funding opportunities that are available.

And I know that my association looks forward to being a part of this.

MR. SIEFERT: Okay. Thank you.

MR. SANDSTROM: Mark told us in the beginning that this program is being available through streaming on the broadband. And I have a problem with that because the very people that we're talking about are not able to listen. And so that's what we're

here to talk about.

By the way I gave Jeff half my time, Mark.

MR. SIEFERT: You may have to fight with the other panelists.

MR. SANDSTROM: It's going to be interesting how parallel some of the things that we put together are. I found that there's over -- I think over 1,200 miles of fiber in Nevada. And I understand that much of it is dark.

Along that cable route, there are many communities that are either underserved or unserved because it's too expensive to build the last mile. One of those communities was competing for a small medical insurance back office facility. It would have been 35 jobs. And 35 jobs in the rural part of our state is a lot of jobs. And in the competition they lost out because of their lack of Internet capacity.

We have a company in rural Nevada

that exports pet food. And in order for them to be able to track their shipments, they have to get on the telephone Internet service. And wouldn't it be great if they could track their shipments just over the broadband. Wouldn't it be great if they could receive payments for their shipments through the Internet.

As Jeff said, we've got many renewable energy projects coming to Nevada. And it would be great if the managers could communicate with the rural employees via the Internet.

We have a requirement at the Commission on Economic Development that our partners out in the rural part of the state report to us. And if they can, we require that they report via Internet.

And there's one county in particular, Half the time they send their reports, we don't receive them because the Internet fails in their community.

So I see this as a great opportunity for Nevada to be able to expand business in its rural communities.

But, you know, there are other advantages that should be available to our people. The ability to communicate, the ability to be competitive.

In our organization we have an organization called Procurement Outreach Program. And they had a company up in a rural community named Alamo that's about 90 miles from here that secured a contract with the federal government to supply lumber to them. And this was all through telephone.

The company never received the lumber and then had to ship it. It was just all by telephone because they didn't have the Internet that they could process the orders and have them shipped.

A few other opportunities that I see that Nevada needs and deserves are

the opportunity to grow and learn.
Access to goods and services, access
to healthcare, access to security
services, access to knowledge.

And I believe Nevadans want, need,
and deserve those opportunities. It
looks like you're just in time to be
the next speaker.

MS. TWENHAFEL: Yeah.

MR. SIEFERT: Karen, if you want to
take a second and pass the mike to
Gary to give yourself a chance to
catch your breath or you can go right
now, whatever you prefer.

MS. TWENHAFEL: I'm fine to go right
now.

MR. SIEFERT: Go right ahead then.
Thank you for joining us and I'm glad
you made it.

MS. TWENHAFEL: The 21st century,
right.

MR. SIEFERT: Yes, exactly.

MS. TWENHAFEL: Hi. I am the late
Karen Twenhafel. I am a senior
consultant at the consulting firm

TCA, Inc. We are out of Colorado Springs, Colorado. I myself specialize in wireless issues and tribal telecommunications issues.

I also proudly serve on the board of directors of the National Tribal Telecommunications Association. And I'd like to take this opportunity to thank the Department of Agriculture and the Department of Commerce for allowing me to participate in this Democratic process, as we sit here and deliberate this extraordinary somewhat expensive opportunity in front of our country today.

As I said I proudly serve on the board of directors of NTTA. NTTA represents the so far eight tribes of American Indians of Sovereign Nations that have accomplished the very difficult goal of self-provisioning communication services on their own lands.

In addition to representing these eight pioneering companies, NTTA also

strives to ensure that the goal of self-provisioning communication services is made slightly less difficult for the remaining 559 tribes, If they choose to walk down this path.

As we discuss this extraordinary opportunity that stands in front of our country today, hundreds of our fellow citizens are participating in this discussion today either via a web cast or a telephone conference call. However, for 4.3 million Americans, this type of participation is simply not available.

Twenty-nine percent of the Americans that live on tribal lands in this country today have no access to the public communications network. I would love to tell you how many of them either have or do not have access to Internet services, either broadband or dialup, but I can't, because there is no formal tracking of Internet access on tribal lands in

this country today.

This lack of access as well as lack of information with regards to tribal lands, with regards to American citizens residing on tribal lands is current 75 years after Congress passed the Communications Act of 1934.

It is a very important act, because in the first paragraph of that act in 1934, Congress determined that all Americans regardless of where they live should have access to a national and advanced communications network. And as I stated 4.3 million of our fellow citizens continue to wait 75 years later.

I urge the Departments of Agriculture and Commerce to take advantage of this extraordinary opportunity that stands before us and them and use portions of that \$7 billion to finally fully implement Congress' decision, a decision that they made 75 years ago.

In urging that full implementation of that decision, I would request that full and due priority be given to applications that seek to bring services to serving areas where the penetration rate of those serving areas are 15 percent or below that of the national average for those services, be it broadband, be it wireless services, or whatever the services is.

I would also urge that the tribal land areas, the federally recognized tribal lands in this country be designated as separate serving areas in this country. This is extremely important in the application process. As I stated there are eight tribes in this country that own their own telephone companies. They all serve exclusively on their own lands. And it is because of this dedication of both federal funds as well as community support within that particular land base that we have

seen the histories of those eight companies, we have seen penetration rates, access to communication services in those communities skyrocket when the tribal land area is the exclusive serving area.

One example is the example of Mescalero Apache Telecom which serves the Mescalero Apache band in New Mexico.

When MATI as we call it began providing its own services in 1997, the penetration rate for wire line telephone services on its land was below 20 percent. Seven years later, Mescalero Apache along with federal support raised that telephone penetration rate to above 97 percent. Tribal land areas must be designated as separate and exclusive serving areas. Therefore, I would urge that any application that comes before RUS or NTIA that is seeking to serve exclusively tribal lands, that that application be given the highest of

priorities.

The other reason it is important for serving areas -- tribal lands to be designated as separate serving areas is that the federal government has recognized that it is the sovereign right of a tribal government to determine the communications priorities and goals on its own land. That is a sovereign right.

In recognition of that sovereign right, a right that only extends to its land, we cannot have an application that seeks to serve both the communities surrounding the tribal land as well as the tribal land.

We certainly can no longer have applications that would only seek to serve the surrounding community and not seek to serve the tribal lands. So, therefore, I would strongly urge that tribal lands be given a -- the priority in terms of getting these services exclusively onto the land.

Finally, in hopes of not making a further population more vulnerable, care must be taken to ensure that tribal governments are duly and properly consulted.

First off again they are the sovereign authority over that land. They are the ones who need to be able to be consulted so that they can make the decisions. It's also important that governments be consulted, especially when you're talking about the location of facilities.

There are oftentimes places within tribal land areas that are sacred, places where nontribe members are not allowed to go and should not be allowed to go. And those areas need to be protected and they need to be preserved and respected.

MR. SIEFERT: Karen, if I can get you to wrap up so the other two panelists can have an opportunity.

MS. TWENHAFEL: But finally it is important that tribal governments be

consulted because both the Departments of Agriculture and Commerce along with all federal departments and all executive agencies continue to be held to a standing executive order that says that the federal government will pursue a Government to Government relationship.

Therefore, I would urge that NTIA and RUS establish procedures that will allow for the formal consultation in this process with tribal governments as well as any applicant that makes an application that includes either a portion or a whole of tribal lands must prove that they have first consulted with the tribal government. Thank you for your time and attention.

MR. SIEFERT: Thank you, Karen. And now we'll hear from Gary Longaker with Nevada Rural Housing Authority.

MR. LONGAKER: Good afternoon. Just a little bit like Jeff did on the

background of our authority, the Nevada Rural Housing Authority was created in 1972. It is the first statewide housing authority for the State of Nevada. In '95 it then became a political subdivision of the state when they took it away from state control, one of the better things I think they've done.

For about 30 years, we administered the traditional programs of a PHA in the 15 rural counties, the rural parts of our two urban counties. In the last five years, we have started developing new affordable housing programs as the statutes charged us to do.

I notice some people kind of blinking their eyes. If the glare off my head is causing you some problems, blame the moderator for not giving me a towel to cover my head. And how are you going to read that small print? I can't do that anymore.

We would like to see and are a great

advocate of getting broadband in the state and throughout the state. We already use webinars to train our lenders, our mortgage brokers, our realtors, and our single family tax bond programs and our mortgage credit certificate programs. And that's been very, very helpful and it's been a tremendously useful tool.

We feel that with the advent of broadband here out to the rural areas, we could use that. And I'll give you a number of examples of areas that we think broadband could be used.

We own a number of multifamily facilities across the state. In only one right now do we have a computer learning center. We intend at sometime to have computer learning centers in all of ours. And then courses could be devised for the residents there, whether they're seniors or families.

We provide financial literacy

training in a number of areas across the state. We have to travel to those areas. That's another program that if we had broadband could be trained from a central facility.

We do consulting to the rural counties on the development of housing plans and some work on their master plans. We have to travel to each one of those communities.

Broadband could help us train a number of communities at the same time.

For our single family tax exempt programs, the mortgage credit certificate programs, we require home buying counseling. People have to go to sites. If broadband was available in all those communities, they could go to one site with a central facilitator.

The family self-sufficiency program is one that was implemented in the early 90s. We hope to implement that program in the not-too-distant future

and feel that broadband could be a great help in providing training across the state instead of people coming to a central facility.

Twice we have administered what's called the RD self-help program, the 523 self-help program, where a family builds a home under the supervision of a construction supervisor. We're going to have this program implemented we hope at a number of sites in the next few years. And again it would be very helpful if the families could go to a facility in their own community and receive some of the training before they actually started to build their homes.

We are now in the development -- our first development, building a development up in Battle Mountain.

We entered into an MOU or memorandum of understanding with Lander County to do this. And one of the provisions of that MOU is that we provide what I see the federal

guidelines call Youthville.

We're going to provide some consulting and some courses in not only how the kids do the actual construction techniques, but also the permitting process, how to go about getting title and things like that. For weatherization that we administer in the western part of the state, we think that broadband would again be helpful in the training our technicians so they don't have to travel down to Las Vegas and they can get training at different sites.

This really isn't any different -- I was introduced as having a military background. Broadband really isn't any different than distance training that's been around since the early '90s or '80s in the military, where units would go to local National Guard armories and receive training there instead of having to go to a central facility.

And I believe that we're just now scratching the surface of how we can use broadband. We not only want to have the broadband available for very low income and low income and our moderate income families that are participants, we want to have it available for the communities themselves in the ways that I have just iterated for our staff and for our affordable housing partners. And I think I just finished and now I want to watch you read that small print.

MS. FAST HORSE: Thank you. Good afternoon. My name is Valerie Fast Horse and I am a council member from the Coeur d'Alene tribe in Idaho and I'm also the director of IT for the tribe. And I formerly served as the cochair of the ATNI, Affiliated Tribes of Northwest Indians, Telecom and Utility Subcommittee for about eight years.

ATNI I want to describe just for a

moment is one of the oldest tribal organizations in the Northwest or in the nation. And it has 55 tribes from Oregon, Washington, Idaho, Montana, Northern California, Nevada, and Alaska. And these tribes are federally recognized tribes that have treaties with the United States. And each tribe has an elected body of officials who are committed to promoting health and safety and welfare and education and economic development on the reservation. In addition, tribes are deeply committed to the preservation of language and culture and natural resources.

And you think about this, you know, collectively tribes own and manage millions and millions of acres of land in this entire continent. And this includes vast regions of undeveloped wilderness, hundreds of miles of coastal lines such as the Quileutes and the Quinalts and the

other tribal or Washington tribes. They have international boundaries like the Tohono O'odham down in Texas or some of the tribes in Washington and all along the Canadian border. So when you think about developing communication infrastructure on -- in tribal nations and on Indian land, you have to build it with the idea in mind that the communication of this nation is only as strong as its weakest link.

If the tribes become the weakest link and we have these miles and miles of coastal lines and international boundaries -- and I think that one of the priorities should be given to developing and helping tribes develop the communication infrastructure on the reservations.

We all know that communications systems nationwide have undergone rapid development for most of the metropolitan areas. But tribal nations and other rural areas have

always been left behind.

And, you know, there's just not a business case, where people do not want to build out where the money doesn't exist. We are financially insignificant. You know, there's no return on investment.

So this is always left up to the local municipalities. You know, some counties, some cities, and tribes have taken it on themselves on building out the broadband infrastructure to serve their communities and their vulnerable populations.

Several years ago the organization Affiliated Tribes of Northwest Indians played a very, very, very strategic role in helping tribes to work on closing this gap. And through the work of the economic development committee and the telecom and utility subcommittee, we developed a model.

We were talking about the barriers

that were involved in promoting broadband on our reservations and in delivering it. And the goals that we thought about at the time was that we needed to build a system that was adequate enough to support our tribal government.

It needed to support public safety, the fire, the medical, the police, the hospitals and clinics on our reservations, the schools, the educational facilities. It needed to support any new development and the residents of our reservation communities.

So the idea was to provide sufficient bandwidth and a load balance redundant system that would be scalable, that would be able to meet the new growth, and that would allow for critical activities and higher bandwidth demand such as telemedicine and distance learning.

With that in mind, from our discussions we developed a model that

what we thought was -- could be used for -- to have all the tribes do their technology assessments. And we thought it would be a locally empowering solution to address the digital divide as we saw it.

And First we determined that there really are four divides and not one.

And the divides are transport, distribution, access, and content.

And so when we go out and do our technology assessments, we have to look at transport -- and each one is critical to the other. Not one is more important or less important.

Each one -- we looked at it kind of like a holistic model, like a medicine wheel, like a circle that has four quadrants and each one being important to the other.

So transport, we thought, well, we'll go out and we do our assessments on our reservations. And we look at the feed, what do we have to deliver broadband to our reservation or any

other rural community. Do we have fiber, do we have coax, do we have copper, do we have to rely on microwave, do we have to rely on satellite, are we in Alaska, you know, what do we have to serve our reservation community.

Just an important note, you know, is when we talk about investing in infrastructure, I just want to mention that I really think that a higher priority needs to be given and more points to people who are going to develop an infrastructure that has a very, very, very long shelf life.

And I think most of us know that fiber lasts 100 years, that, you know, you put fiber in the ground, that's a very good long-term investment that, you know, really the speed that you end up with at the end of the day is really dependent on the equipment you put on both ends.

And so I think fiber is by far the best choice ever to deliver broadband

and high-speed Internet to rural communities. But, you know, that's not to dismiss the other technologies, you know, such as satellite and wireless, things like that.

So again back to the model. We're talking about transport. We have to assess where our communities -- what exists now and what is going to be the most financially -- the most viable way of delivering broadband to our community.

The other point is distribution. Once you get the speed onto your reservation, whether it be a 100 megabit ethernet feed or an OCR 45 meg connection, whatever it is, you have to figure out how you're going to distribute it around your communities.

So, you know, like Verizon and some of the telcos, they have DSL.

So they put this special equipment inside their central office and you

have to live within a certain radius of that; or you have municipal networks who have gotten very creative and have used things like grain elevators and existing structures, put up some wireless access points, and then deliver to, you know, farmers and other people driving around on their tractors with their little access points and things like that. So, you know, distribution, how are you going to get it around.

And then access. How is the consumer going to attach to the network, is it going to be a modem, an antenna that they attach to their house, a set top device, you know, what is it.

And then content. Content is the entire reason for building the network, you know, whether you're a farmer riding around on your tractor and you want to access the latest commodity prices so you can know when you're supposed to sell your

bluegrass or whatever it is.

You know, without culturally and locally relevant content, it's nothing but a bunch of equipment and wires, it's absolutely useless.

Content is the whole reason why we want to build these networks. So when we're thinking about economic growth and stimulus, you know, it's important to realize that true economic development cannot happen if we only focus on capitalizing on infrastructure and equipment while ignoring our human spirit.

Technology has proven to be a great tool for stimulating the most creative of minds. With applications such as Facebook, MySpace, YouTube, blogger.com, and countless other sites, the lines of what we define as community are blurring. We are no longer confined to any single geographic location, we are no longer satisfied with being just passive recipients of news and information

being fed to us.

We want to take a part of this, we want to take an active role, we want to participate, we want to develop our own content. People are every day developing new blog sites, new videos to post on YouTube, and just these social networks are growing like crazy. And people are loving it, they're eating it up, you know. For many people broadband provides a means of claiming our own humble place at the corporate table of technology. It's a place where we get to share our news, our information, and transfer our knowledge with other people across the globe. For the Coeur d'Alene tribe and other tribes, it has become a way of using technology's greatest strengths to preserve our greatest truths. And that is our history, our language, and our culture.

Thank you for providing me this opportunity to present this to you

and thank you for your diligence on behalf of the Coeur d'Alene tribe and the other Northwest tribes very much.

MR. SIEFERT: Thank you very much.

And I want to thank all of our panelists. You've given us a lot to think about. And I think right now it's my job to try to see if I can pull a little bit more out.

And what's interesting to me from watching this panel is it seems like -- so one of the things Congress said is we want you to spend at least \$250 million on innovative programs to drive demand.

But what I heard from Jeff and Jerry and I think from Karen and Gary and from Valerie also is that you don't see the problems with demand, that you think that if suddenly it's there and it's affordable, that the -- that people will take it up.

So let me push you a little bit on that. In your urban area here in Las Vegas, and I may have to turn to some

of my economic folks or the housing folks, do you have takeup rates that match -- so in urban, say, low income areas or minority areas or socially disadvantaged areas here in Las Vegas, do you have people taking up broadband at the same rates as, say, some of the wealthier sections of Las Vegas or in Henderson?

Because traditionally the problem is we have populations who either see it as a luxury or they believe they're priced out of the market or in some cases, you know, there have been -- in rural areas I think that we have said, you know, we have some places that have it, you know, some places you have it and some places you don't.

But for driving demand, it sounds like if we're out in the rural area, as long as we build it, it's the panel's belief that folks will sign up? Go ahead, dive right in. Sure.

MS. TWENHAFEL: I'll take a crack at

that. My -- you went here to speak of me. But the rest of my company actually focuses on rural telephone companies of which, of course, all eight tribal telecos are.

And I will say that in comparing the tribal teleco clients to the rural telecos, in terms of DSL rates because they all offer DSL, we have one teleco who offers a wireless broadband product, all of the take rates are pretty much the same, if not perhaps a little bit higher, on Indian Country, on reservations, when we actually get the broadband developed there.

And I would say on average in the rural areas broadband is probably running at right around -- in terms of take rates, probably running at probably right around 30 percent.

And we're talking about serving areas that have access anywhere between 90 and probably close to 100. On tribal areas we don't really see that drop.

All of them are able to access -- from what I know, all of the eight probably again have access rates meaning penetration rates probably somewhere between 90 to 95 percent. Access and take rates are running right around -- I would say the average is probably 32 to 35 percent. So I don't think it's -- I don't think it's quite so much a matter of if you build it, they will come. Obviously there are price sensitivities. And anything that, I don't know, the FCC could do maybe or Congress could do to get some sort of economic support especially for low income especially in the lifeline for broadband access in my opinion will be a very good idea. But I don't personally think that certainly in Indian Country that, you know -- I think it's definitely not an issue of demand. In Indian Country without a doubt it's an issue of simply not having the

infrastructure.

MR. SIEFERT: Karen, you believe the same for Coeur d'Alene and for the Northwest tribal areas?

MS. FAST HORSE: Well, I do. But let me just tell what you we do on our reservation. We do have broadband in certain areas. We have a very mountainous terrain.

So because some people are in deep valleys, they're outside of the line of sight of the access points, they don't have access.

But what we did is we applied for one of the community connect grants, you know, back in early 2000 and we were awarded. Part of the grant required us to build a community technology center. I absolutely love that part of it.

The community technology center has become a focal point for our community. It has become a place where people can come and still access broadband without having to

subscribe if they can't afford to. You know, if they're making a choice between paying their ever rising electric costs and broadband, broadband is going to go. But we still provide it, we still provide it.

And I want to tell you that since we first opened our doors, that we average over 2,000 to 2,800 sessions per month. And we have a population group of all our -- well, I shouldn't say all. Adults during the day and then the kids come after school, and we actually became a bus stop.

So, you know, the little kids -- every day I look out my window and the kids are running. They're running, they're throwing their backpacks down and ripping off their coats. They're hurrying to get to the technology center.

So I don't know that we can actually measure the changes, but I can tell you that it's making a huge

difference. And I think it is a very important thing and I was really glad that we were able to do that.

MR. SIEFERT: So you got this through a community grant program, through RUS. And the ongoing costs, how do you cover those, because there's the initial start --

MS. FAST HORSE: Ongoing costs for our technology center?

MR. SIEFERT: Sure.

MS. FAST HORSE: We also provide broadband prescriptions to the homes. If they want the convenience of having it at home, then they pay a subscription, a monthly subscription price. If they can't afford it, they come to the technology center.

MR. SIEFERT: And does help cover -- the broadband subscriptions, does that help cover the cost of what's going on at the community center or is that covered by RUS?

MS. FAST HORSE: Our revenues, our revenues are covering the costs.

MR. SIEFERT: Excellent, excellent. That is actually one of the panel discussion topics tonight, is community centers. And driving places much like the place we're in tonight, the Charleston Heights Center, figuring out ways to turn places like this that are already bricks and mortar, already built, into computer centers for folks who may not be able to afford, some vulnerable populations.

Do you have -- and again any of you can answer this question. Have you had experience with, say, some of the other populations named in the statute, the aged, those with disabilities, poor folks, communities that typically have been left behind on the digital transition, do you have programs that you've seen that work, that get those folks who might not normally -- you were talking about the farmer.

Do you have programs that you've seen

that have worked to bring those folks that don't traditionally have their BlackBerries, that don't traditionally kind of surf the web, to broadband?

MS. FAST HORSE: Actually, you know, the funny thing is, you know, we made such a big deal about it when we were rolling it out, it was almost like we were having a baby. I mean like every time we did something, we broke the ground, we had a ceremony. When we did our first brick, we did a ceremony. I mean we kept doing these community ceremonies and letting people know.

And we actually created a big hype. So by the time the technology center went into broadband infrastructure, we chose a wireless technology, and it was built, everyone was very, very excited.

I mean farmers were stopping me, they literally were stopping me, you know, at the store, in the market, and

asking me when it was going to be done so they could do the things -- you know, their applications. So I think we did a lot to generate the hype through public awareness and promotion.

MR. SIEFERT: Okay. So, Jerry, you talked about it's your estimation something like 1,200 miles of dark fiber?

MR. SANDSTROM: 1,200 miles of fiber.

MR. SIEFERT: Of fiber. And most of it -- a lot of it is dark.

MR. SANDSTROM: A good part of it is dark.

MR. SIEFERT: And would you consider those to be what we would call middle mile facilities if you lit them? Or I guess you could break in and light them all along the way, they become middle miles.

Do you think the fiber is sufficiently laid to where we just need to purchase the electronics to get those lit up and assuming -- I'm

assuming that's 1,200 miles that's spread out over Nevada or are they concentrated to population centers?

MR. SANDSTROM: There are two corridors, one follows I-80, one follows I-50, then there's a north to south corridor, and then there's a short corridor that follows I-15.

MR. SIEFERT: And is it your sense if those were lit, that that would provide sufficient access points for rural communities for the folks -- the need that we're talking about?

MR. SANDSTROM: Well, I think they need to be lit and the infrastructure needs to be there, a POP. And, you know, like I said the last mile is the most important part.

MR. SIEFERT: Right. So let me ask you, we've been tasked by Congress to come up with a grant program. And if you start paying last mile, you're going to run through your 4.7 plus your 2.4 or 2.5 fairly quickly.

In previous sessions I have pointed

out that if you divide seven by the 50 states and the six territories and the District of Columbia and that's not even including as Karen would have it the different tribal nations, you get down to about 150 or so million per state. And that from what I understand is not going to buy a lot of last mile fiber.

And so the question is how do we spend this money wisely. Do we spend it on projects for last mile in areas that don't have last mile, do we spend it on middle mile?

Given the goal this panel was talking about, how to reach vulnerable populations, right, folks that don't have it which are going to be rural areas that you've been talking about, and again we've talked about low income, tribal, minorities, that sort of thing, what's the panel's suggestion for spending that money?

MR. SANDSTROM: Well, My first suggestion is kind of related to some

experiences we've had with other agencies that are involved with the AARA. And they have used merit as a way to judge which of the applications are most important. And I understand that puts the onus on you to make those decisions.

MR. SIEFERT: But should last mile be a consideration?

MR. SANDSTROM: I think so, in some of our communities.

MR. SIEFERT: And so in Nevada, if we decided we wanted to roughly split or if we -- I'm sure some of you say we should just give it all to Nevada. But Utah might have a problem with that, so might Wyoming, and maybe Washington state. And we've got a lot of folks up on the Hill who are watching us how we do that.

And one of the things that we've talked about with these programs is that they're test beds, right. We know 4.7 plus 2.5 is not going to wire up the entire country or

wireless up or satellite up depending on the technology you're talking about. And we know how last mile works.

And my concern is do you think we should pick and choose? Say we can only pick one tribal area in the state to do last mile and that last mile takes the money away from, say, three to four middle mile projects. Is it the panel's recommendation, and again jump in, that that's what we should focus on, do you think it should be a mix? Go ahead.

MR. FONTAINE: Well, let me expand on what Jerry mentioned. At least one of the major conduits that runs across the state on Interstate 80 was long-haul conduit. So it was never really intended to provide that service to the rural communities in Nevada. But I believe that there's probably access points all along the way.

And it seems to me that when you look

at connecting these communities, you've got to look at, you know, sort of a cost-benefit analysis here. How much would it cost to run that last mile from a major long-haul fiber facility to maybe a community two or three miles down the road if that's something that, you know, pencils out in terms of the cost, you know, in relationship to the number of people who can then benefit, I think that's what you have to look at. But I can tell you at least from my perspective that that would be a very prudent investment in our state.

MR. SIEFERT: I guess maybe I should clarify terms about what I think of as last mile and middle mile. What I think of last mile is the connection to the house. And that the middle mile is what gets you to a community. And then you have to figure out ways like Valerie's folks did to either those people who can afford or who want and are willing to pay for it at

home versus having to go to the community center because they may not be able to afford it.

And that's what I think of as last -- that's what I think of as middle mile, is getting it to the community, and then the last mile being the individual homes. Go ahead, Karen.

MS. TWENHAFEL: I was going to say I think it's really important to -- while it certainly is nice to dream and to think that we're going to have -- our coffers are never going to run empty, I think it's also really important to remember that this is considered to be a stimulus bill meaning it's not necessarily a one-time shot, hopefully it's not a one-time shot.

But what I would say in terms of it being a stimulus bill is that you should be looking for projects where you're going to get the most bang for your buck. If I can -- I've heard that from NTIA and RUS about 100

times at least.

MR. SIEFERT: We grab phrases and hang onto them.

MS. TWENHAFEL: Quite a bit. And in that case I would also say again that this is still the government. And whereas a business doesn't necessarily always get to make decisions, they mostly will have to make decisions based off of finances, especially if they want to keep their door open.

The government also gets to make decisions both based off of finances as well as what is prudent and fair policy. And again in this case my opinion in that case would be, especially if you turn to merit, those communities that have the least in my opinion should be the ones first in line, because I believe that you will find the payback amazing in both policy but especially in terms of stimulus.

MR. SIEFERT: Right.

MS. TWENHAFEL: I have seen -- and I'm sure Valerie could certainly speak to this. I have seen amazing things happen in tribal communities when any sort of technology is brought in, but certainly when broadband is brought in. It is amazing the types of business and the types of economic stimulus that is produced.

MR. SIEFERT: Okay. And I wanted to ask you a question because I think you made a very strong point about tribal lands and tribal sovereignty and nations talking to nations. And we have struggled with this.

And one of the interesting things is that broadband doesn't really recognize borders, right, and the whole concept and I think Valerie made the point of connecting communities.

And do you think there's interest in say public, private, tribal, state combined, because the question is if

you build a piece of fiber up to a border and then you stop, you have somebody else come up and then build that fiber across the border, you then start talking about doubling up on overhead and doubling up on administration and those sorts of things.

And my concern is that if you're looking for best bang for your buck, that a community that has not been reached is definitely going to weigh high or, you know, score high, if that's the criteria you're using.

But then when you look at what the statute also says about sustainability and that there's a viable business plan, that such a -- such a kind of twofold or kind of non -- you know, where you have people starting and stopping might not score as well.

And I'm wondering if there are creative or innovative ways that maybe we haven't done before that,

you know, we should hear about.

MS. TWENHAFEL: I was at -- probably the largest tribal business meeting actually took place here in Las Vegas last week. It's a meeting called RES. In this case it was RES 2009. I was here all last week.

And I tried a lot of times to talk about something else, but I could not get the topic turned from the broadband stimulus programs.

And while I was speaking to a lot of tribal governments, I was also speaking to a lot of businesses, both those tribally owned, those owned by Native Americans, as well as those owned by, I don't know, perhaps somewhat greedy white people like me. And I think that absolutely there's a lot of innovation.

Again if you just look at the eight tribes that own their own telecommunications companies, while you will find certainly similarities in their stories of how they

originated and how they continue to do business, you will also find differences.

And those differences are because that is what that particular community needed, that is what that tribal government felt it was right for their community and their peoples.

I don't think you're ever going to find a tribal government that is willing to say, you know, our sovereignty is more important than providing jobs and providing services for my people. I think you will certainly find a lot of innovation especially if you keep the applications very flexible.

MR. SIEFERT: Sure. And, Gary, I wanted to ask you a quick question because we're going to have to turn to public comment pretty soon.

Housing seems to me to be a great opportunity, if we're paying for public housing or we're developing

housing, that there are some opportunities there. And have you seen that work? You know, I know you had your work in Oklahoma and in other places.

Have you seen those sorts of -- if somebody could get money to build public housing, one suggestion has been that you go ahead and wire everything up and then you save that cost of having to go back in.

MR. LONGAKER: When you build new housing, you can put those things in, a computer learning center, the very things you're talking about right now. You can make it a part of your budget and then you can carry it. And that's what I was talking about earlier. As we start building complexes in the rural parts of the state, it's part of our plan to start putting in computer learning centers and to have broadband there. It would be very similar to what we did when I was in Texas, with Southeast

Texas Housing.

We had computer learning centers there. And the families came in and they took a number of courses right there in those computer learning centers. Everything from any kind of career counseling to language to just a host of different things.

And I would agree with the two young ladies here today. If it's there and you build it, they will come. They will come and they will start making use of it and you will derive great benefits.

MR. SIEFERT: Okay. And then I wanted to ask one last question. If you are interested in asking questions and you're here in the audience, you should feel free to line up behind the microphones because we're going to turn to questions quickly. If you're on our teleconference and you would like to get in line on the telephone line, you may also start that at this

point.

So I think it was Jerry who was talking about -- maybe it was Jeff talking about the renewable energy sources. Was that you, Jeff?

MR. FONTAINE: Yes.

MR. SIEFERT: One other thing that we've been talking about with this program is that we have a lot of different pots of stimulus money and that it didn't make sense for us to keep it siloed.

That's one of the reasons RUS and NTIA are spending time working to try to unify applications and trying to meld applications, if we need to take some from rural money and some from NTIA, it seems to me the smart grid money and the transportation money and those sorts of things are another place where we can leverage stimulus dollars.

If we're building roads into rural areas or repairing bridges in rural areas, that this is an opportunity,

you only have to do one environmental study instead of doing do the environmental study and then do a complete additional environmental study.

I would like your feedback on do you think that given the time we have to get this money out, because it's supposed to get out very quickly, and the different organizations involved with spending the money, do you think that's a -- is that a pipe dream or do you think it's something that really could work?

MR. FONTAINE: I think it can work and I think it's a great idea. I mean you leverage money, you save costs. But obviously it's going to be incumbent upon whoever is doing that project to do the coordination and have a, you know, strategy on how you're going to do that.

But you're absolutely right. I mean if we're going to be installing renewable energy transmission lines,

developing renewable energy sources, you've got to drive there, you've got to have the broadband access to actually operate these systems.

I'm told from some of my counties that in places where they have already developed resources like geothermal and solar, you know, those facilities are were actually operated, you know, from some remote location.

So it's not only the initial development of those types of projects but the ongoing operation of those projects that's going to benefit from these types of broadband applications as well. But again to your point, I think it's absolutely imperative that we try to maximize the use of all those dollars and do it the way that we can leverage as much as we can.

MR. SIEFERT: But it seems to me too and, Karen, I liked the four ways you talked about building out, and one of

them was transport.

MS. FAST HORSE: Valerie.

MR. SIEFERT: Valerie. Sorry. It has been a long week and it's Tuesday. That transport for these alternative energies and the green energies, part of the issue is getting the energy back.

And I know that that's one of those -- the trying parts of alternative energies, is you may have a wind farm, but it's pretty far out in the middle of nowhere and you've got to get the energy back.

It seems to me that that might be another avenue where if you're running transport of electrical lines back, that you could run the fiber at the same time.

MS. FAST HORSE: I agree. And I think a lot of electric companies, and I don't know if there are electric people in the room, but I think they already build fiber out to their substations and they use it for

their own purposes.

So if we can let's say have an open access network or a coalition of regional interests and develop an open access network so we can all share in this bandwidth and maybe resell it at wholesale prices or to the local -- the last milers, you know, some sort of creative way to do it, I think that would benefit large regions at the same time.

MR. SIEFERT: Excellent. All right. Well, let's turn to questions. We have folks standing patiently awaiting. This will be microphone one, this will be microphone two, and I'll just pop back and forth.

And I think we have right now about 25 minutes. So if your line looks long and you want to shuffle to the other one in hopes of getting to ask your question, you should feel free. Why don't we start here. Tell me your name and where you're from.

AUDIENCE MEMBER: My name is Steve

Shore, I'm vice president of Constant Communications here in Las Vegas.

A couple things. First of all I want to make it clear that the 1,200 miles of dark fiber that was discussed was most likely the 1,200 miles of dark fiber that runs between the rural communities and the major urban communities within Southern Nevada. In Southern Nevada as a company we probably provide nearly 5,000 miles of fiber to the local government, probably three times, three and a half times that number of coax miles, and if you add all of the telecom providers in Southern Nevada, it's probably at least three times those totals.

So the issue in Southern Nevada and I think in most of the rural cities is not the issue of broadband technology to the community, it's the usage of the technology. You asked a question earlier about that specific usage. Within the urban communities, whether

or not the low income communities have a take rate in comparison to the other communities. Typically the take rate is smaller, for sure it is smaller. But it's not because of the technology unavailability; because any place there is coax or fiber, there is the availability.

The problem is the hardware, In getting the hardware to the individuals who want to utilize the broadband services. What you talked about earlier, and that is the question of technology centers, I'm very proud that we've been able to provide a number of technology centers within the Greater Las Vegas community, is a key to the areas where there is limited income.

To believe that people just because you run broadband services are going to use that service I think is a false statement. They have to have the hardware. They have to have that piece of equipment to connect them to

the broad Internet. And they don't have that. That's the issue.

The question I have is dealing with that rural to urban communities and that connectivity, because as he said about the 1,200 dark miles, that needs to be corrected. And the services within the rurals need to be similar to that in the urban communities.

How are you going to balance that off to the needs of the individuals within those low income and underserved communities who need the hardware, not just the broadband, because it's already there?

MR. SIEFERT: Panel.

MS. TWENHAFEL: Okay. I'll take a crack. I would just say again at least in -- let's take the tribal communities for a second outside, because I think there's absolutely very little doubt that unfortunately the broadband access is not in the tribal communities.

In the rural communities where there is the access, again in terms of -- in terms of getting the hardware there, I'm not going to say it's not a problem. Obviously, yes, it is.

And obviously if you're a low income consumer, you're going to have to decide like Valerie said.

If you have to decide between paying your electric bill and buying a fancy new HP laptop that can allow me to download the latest movies, you know, at very high speeds, probably not too much of a choice. Well, for me I would probably get the laptop, but that's just me.

But I would also say that as we see hardware coming down both in price as well as in terms of accessibility to access the Internet, I mean right now in my backpack that is hopefully being taken care of very carefully, I have at least four ways to access the Internet in there. And the average cost of that particular piece of

equipment is probably about \$200.

I know that in -- there's a couple of foundations set up in California that is expressly to get the price of a -- certainly it would be a very simple, very basic, but to get the price of a laptop down below \$100. And these are being focused on in areas in Africa and other areas of the world, where there is not a lot.

So in terms of hardware price, I think that might be an issue that -- like I said I think is a current issue but I believe is coming down very quickly. I'm not sure it's that large of an issue.

MS. FAST HORSE: And I would just like to address it too from a tribal perspective, that when you say equipment to connect, I'm thinking cable modem or something like that or customer premise equipment, or are you actually talking about a PC?

AUDIENCE MEMBER: PC.

MS. FAST HORSE: You're talking about

a PC. Okay. The way the Coeur d'Alene tribe has addressed, and I think that a lot of other communities can take a look in their corporate closets and see what kind of equipment they have. What we do is equipment is placed out and removed from the tribal network.

We put it in a storage place and set it aside. And we have community classes where we teach people how to come in and rebuild a computer, how to upgrade it. And so we wipe out all the old data so they're not walking out with something confidential from some office.

So we fdisk, reformat, start over, help them to install operating systems and their network virus or their virus software and things like that.

And people who -- and a lot of times it's the kids who like to do this.

You know, the kids love to do it And they get to go home with a computer.

So Just one possible solution.

MR. SIEFERT: Okay. And now we'll go to microphone two.

AUDIENCE MEMBER: My name is Michael Skelly, I actually ran -- ran two of the eight telephone companies that --

MR. SIEFERT: Can I interrupt you for just a second. I meant to say this every time. So that everybody can get a chance, if we can try and keep it to one minute, I will have the official chronometer up here. And when I raise my hand, it means you have hit the one-minute mark. So we'll start you over. Go right ahead.

AUDIENCE MEMBER: Mike Skelly. I'm currently an independent consultant. I formerly ran two of the eight telephone companies that Karen referred to on tribal lands.

One of the challenges that I've seen that this is a great program, that there's going to be funds available for building infrastructure. But

you've got an inherent problem that affects not only tribal communities but rural communities in that all lands are not treated equally.

There is a rule known as I believe it's 54.305 enacted by the Federal Communications Commission, when the 1997 act was passed, that really affects every rural community that is being served by one of the Bell Operating Companies that limits those communities' ability to recover the ongoing cost of operating these upgraded systems.

So you've got to have parity and that's got to be corrected going forward. You can build these networks. But if you can't afford to operate them, you're going to have an ongoing problem.

And that's a rule that Mescalero tribe in New Mexico had to go through a lengthy process to have that process -- to get a waiver of that rulemaking. So that's a challenge.

You can build it, but you've got to be able to operate it too.

MR. SIEFERT: Okay. Thank you. Go ahead.

AUDIENCE MEMBER: Good afternoon. My name is Lee Santiago and I'm director of emerging markets for the California Emerging Technology Fund based in San Francisco. On this topic of reaching vulnerable populations, I want to make two recommendations to NTIA at this point.

One is that we through these investments should be able to monitor and track progress. In California, our largest state in the West, oftentimes we're perceived as being the home of technology, which it is, we have 17 million people not connected to broadband at home.

If it were a state, it would be the fifth largest state in the nation of people disconnected.

And so we want to make sure that as

these investments take place, that we are seeing that needle move, that we are seeing, in fact, results. So as grants are made, we want to ensure that those grantees are monitoring progress and tracking results.

The second thing is as those grants are distributed, that people who receive the results of those grants, that they should demonstrate results in specific populations. We know who the people are that are at the bottom of the digital divide.

They are low income, they are immigrant, they are non-English speaking, they are intercity populations.

So one size does not fit all.

Ensuring that the grants and grantees know how to reach these populations, and it goes beyond simple translation of materials.

MR. SIEFERT: Okay. I think this dovetails nicely with Karen's point about the census -- I think it was

your point about the census and about monitoring populations and getting good data about who is taking up broadband and who is not taking up broadband.

And this question also comes -- it's similar to a question by Martin from Birmingham who wants to know if it's possible for the federal government to provide more current census data via the Internet as the information is almost nine years old. And I believe he says most of the problems are in rural and unserved areas.

And I'd like to say, Martin, that the census is going to be starting up in 2010 so that question should be resolved. I know the FCC has also recently updated its collection of information. The 477 takes a number of different new pieces of information from providers.

MS. TWENHAFEL: Can I just quickly address that, though. Again all tribal communities are different.

However, the fact that I gave, about the 4.2 million Americans on tribal lands without telephones, that came from the 2000 census.

However, what we have found -- what my company has found, when a tribe comes or a telephone company seeking to serve a tribal area comes, we have found through door-to-door surveys that telephone penetration rates are generally actually below what the census bureau is reporting.

A lot of tribal leaders will tell you that with regards to the census bureau data, you really probably shouldn't rely on it that much for tribal communities. Perhaps it's pride, perhaps it's other things.

The other thing I would say in terms of the 477 which is the form that the FCC uses to gather broadband data, the FCC modified that form this year. NNTA and other tribal associations heavily urged the FCC to track broadband access on tribal lands.

And we still do not have any -- any way of tracking broadband access on tribal land areas.

MR. SIEFERT: Okay. Is it your turn or your turn? I want to make sure.

Okay. Your turn. Thank you. I love how the audience always keeps me honest.

AUDIENCE MEMBER: Hello, My name is Ed Anderson, I'm the director of network services for the Nevada System of Higher Education. I am kind of in charge of this 1,200 miles of fiber.

MR. SIEFERT: You are the man, everybody wants to talk to you. This is excellent.

AUDIENCE MEMBER: It is lit and it is operational.

MR. SIEFERT: That's even better news.

AUDIENCE MEMBER: What is not and what we've tried to do, we serve a lot of entities throughout the state including tribals and tribal

facilities. And generally we support K-12 and higher education, distance education, rural healthcare, research networks, and those kinds of things. We work in conjunction with the Department of Information Technology and the Department of Transportation to jointly develop this infrastructure that is throughout the state.

What has not -- has not been accomplished to date, though, if earlier testimony or discussion was correct, it is point to point in some cases. But there have been pockets or hand holds or spots, access points that have been set aside and built that can be tapped and make access points available to places like Eureka, Austin, and Battle Mountain. And we have done that in cases in working with the communities. At Battle Mountain, for example, there's a generator in the high school that they built. And we did some

trenching.

And all this has been a collaborative effort that we've made these things happen.

There is still a lot that needs to be done. And that's -- we see that as -- and again if you're talking priorities on middle mile versus last mile, I consider this middle mile or transport.

And by doing this, by providing these access points, you're not only providing low cost or easy transport, you're reducing the last mile costs because a lot of those are based on mileage. And so now people can afford to pay those last mile costs. What used to be a 12 or \$1,500 a month bill is now only 300 or 200.

MR. SIEFERT: So I just want to make sure the panel understands that we're all on the same page. It's lit and what we need are POPs being built to access the 1,200 miles. And I just want to get the panel's -- I think

that's what I hear you saying.

I'd like to hear the panel's reaction. I mean is this news to you, are you ready to change your applications now?

MR. SANDSTROM: This is news to me.

MR. SIEFERT: This is a good day then, we've crossed the divide here.

MR. FONTAINE: What I'm not clear about is whether or not there are POPs along the way, because I happened to be involved in those projects when they were installed years ago. And I thought that we had required POPs to be placed along the way. I don't know if there are or there aren't.

AUDIENCE MEMBER: The carriers placed POPs. We have equipment in their OA sites and there are POPs along the way. But we've also got into our own -- we have an NDOT facility in Winnemucca in the basement of the yard there.

MR. SIEFERT: I'm going to jump in

for a second, because I think this may be a Nevada-centric question. And I think I'm saying that word correctly too. But I want to make sure that the other folks get a chance to ask their questions. But did you have a question before I turn --

AUDIENCE MEMBER: No. I just wanted to correct that.

MR. SIEFERT: Okay. Good. That's good news.

AUDIENCE MEMBER: I have opinions on if you build it and they will come.

MR. SIEFERT: We have -- we have plenty of people for you to talk to. If anyone wants to submit comments to the record also, we have an option on the NTIA broadband web site where you can put more information into the record.

So now I'm going to turn to you who have waited patiently. Do you have a question?

AUDIENCE MEMBER: Thank you. Yes, I

do. My name is Piper Overstreet and I'm just a plain old concerned citizen.

There has been a lot of industry-specific lingo so forgive me if this has been covered.

But what mechanisms are going to be put in place to ensure that money is not wasted on unnecessary network overbuild in already served urban areas?

MR. SIEFERT: Okay. So let me turn your question into something the panel can actually answer. What suggestions do you have for us as a program to answer Piper's question? What sort of -- what sort of controls or mechanisms for overseeing proposals as they're built out to prevent wasting of money and making sure that they actually do what they say they're going to do?

MR. LONGAKER: Well, since there seems to be some I guess disagreement or misunderstanding about what is and

what isn't in place and what is lit and what isn't lit at least here in our state, I know that's pertaining to rural areas.

But I think it's pretty obvious at least to me and most of you now, we need to have an inventory of what's in place in our state. And I don't know that at least in Nevada we have that to date.

And I know that -- well, we'll hear from the next speaker about that.

But I think that would be an absolute prerequisite for obtaining funding and starting the buildout of any new facilities.

MR. SIEFERT: And I want to tell you, I didn't pay Piper to ask this question, because it does definitely raise the next issue that we also have to talk about and that will be coming down the road is broadband mapping.

We definitely have money in the program for states to map what's lit,

what's not lit, where it is, and which will then help us decide where to best spend dollars. This gentleman over here. Do you have a question or a comment?

AUDIENCE MEMBER: Yeah, a question, please. Yeah, Randall Schwartz from Wireless 2020. We're a broadband wireless consulting company. We've worked with operators around the world to help them build business cases and network rollout plans for broadband wireless networks, that could be WiMAX or Metro WiFi or LTE or any of the other different technologies.

I wanted to, A, ask about the application process and that even for the grant program where it's critical to be able to -- be able to look at all the costs involved in a project and be able to do technology comparison between fiber for a certain community or for a wireless technology.

I know that we've built successful business cases for rural communities not only in North America but also in Africa and other parts of Asia and South America. So these can be done successfully.

And also as part of the loan application program, I think it's been talked about in some of the other sessions, where will it be a requirement to be able to show some sort of business case particularly in the case of loans to be able to ensure that there is some sort of payback mechanism and even in the case of grants that there is -- you know, to understand what the operating costs of these things that are invested in can continue to run on an ongoing basis.

MR. SIEFERT: Right. The panel has not been tasked with making sure they understand each of the statutory provisions. So I'm going to let them off easy on this one. The statue

does include language about sustainability and a viable business model.

We are currently in the public intake questions. And some of our panels are going to ask that specific question, how can you demonstrate that a project that hasn't been built yet is a sustainable model, especially because in many of these instances we're going to places where the market hasn't otherwise created the broadband that folks believe should be there.

AUDIENCE MEMBER: Thanks very much.

MR. SIEFERT: No problem. Sir.

AUDIENCE MEMBER: Good afternoon. My name is Bob Gastingway and I'm executive director for the Nevada State Cable Telecommunications Association.

We recently held a hearing in Carson City to ascertain what we need to do in order to obtain some of the stimulus money. It was declared that

the first step as you mentioned would be mapping.

Now, both the cable and the telephone associations have agreed to try and ascertain where there is broadband and where there isn't.

But it was incumbent upon DoIT within the State of Nevada, NDOT, the Nevada Department of Transportation, DoIT, and I guess the rural medicine, they're going to take the lead on this based upon the governor assigning them that task. And we're here to help wherever we can to try and get broadband stimulus money here into Nevada.

MR. SIEFERT: That's good news.

Thank you very much. Sir.

AUDIENCE MEMBER: My name is Galen Updike, I'm from Arizona. And as I listened to Nevada's description of a number of square miles and the size of the state and how much population is in the two major areas and how much federal land there is in

Arizona -- or Nevada, I said that sounds just like Arizona.

And so a comment and a question.

With regard to the largest landowner in both Arizona and Nevada, and that would be under the control of the Department of Interior, which also by the way also has BIA.

And I deal with 22 tribes in Arizona on a regular basis. And I respect and bring them into every decision we make because they are a part of the fabric of our state.

Most tribal members wear at least three hats, they go to schools, their students are at schools, at public schools in Arizona, they are citizens of the United States, and they're citizens of the tribe. And they're citizens of Arizona. So there's a lot of commonality.

So you're right, they don't -- we don't stop communications at the border, the geographic or the political geo -- border. So I would

say the biggest priority we have in the State of Arizona for middle mile is the right-of-way component.

And if we can solve the right-of-way component that exists on federal land, we will solve most of our middle mile problems. And that typically just takes an executive order or there's -- we need to respect the right-of-way obviously.

But I just went through a process which took three and a half years to get BLM to approve a six-mile fiber along an existing highway. And it was just a tremendously horrible experience.

So I say middle mile can be solved by reducing the cost of right-of-way which usually is 30 to 40 percent of it, of that cost, especially across federal lands. And it is a middle mile issue.

And I'd like to get to know who the person in Nevada is that I can talk to from Arizona, because I think we

can form -- we and Utah and maybe Montana and a couple where we have lots of area and small -- big counties also.

MR. SIEFERT: We are all about the states coming together and solving the problems about this. I think that's an excellent idea. I'm going to turn to this gentleman here.

AUDIENCE MEMBER: Hi. I'm Mike Morris, president of Serious Group. We are a technology consultant to the Mescalero Apache tribe as well as the County Commission of Otero County in New Mexico and the City of Alamogordo.

Our main problem, and I haven't heard this come up, is our last mile problem is really, really bad wires. We already have the subscriber base that they were talking about. But they're connecting right now at \$27 a month at 20 K on these old wires. The telephone switches where we are, you expect to hear relays clicking

when you roll up on them. For instance, I'm seven blocks from the switch. We can get 3 m-bit DSL, five bucks, or you can get up to seven.

So that's our primary problem.

Now we're undertaking some extended middle mile which would be just getting some decent wires out to wireless, you know, start that and see how that works. The reservation is 720 squares miles that we have to cover.

Mescalero Apache Telephone as Karen said does an awful good job of getting out as far as they can get. But the old infrastructure and the old -- that are sitting beside the old REA poles are our main difficulty out there.

MR. SIEFERT: So I'd like to ask the panel, what's his solution? It's old copper and 720 miles.

MS. FAST HORSE: I say wireless.

That's kind of what we went through. We had 28.8 is our average speed to

the home. And the wire is probably the same copper they put in the ground 50 years ago.

So wireless was the way we went. And we used unlicensed spectrum. And we actually purchased these flat panel antennas. And we have 14 DBI and 19 DBI. And we put off-the-shelf link systems on them. And then we flashed the linksys with our own operating systems so we could control the bandwidth. And that's our customer premise equipment. And it's very inexpensive and affordable.

MR. SIEFERT: Valerie may be getting job offers before this evening is over. Okay. Go ahead, ma'am.

AUDIENCE MEMBER: Thank you. My name is Susan Estrada, I'm with a nonprofit called First Mile dot U.S. And we promote broadband demand. I would like to take a little bit of exception with what the panel is saying about driving demand.

We know from a myriad of studies that

are available, one that was just released last week from Nielson that talks about demand in the house particularly in urban underserved areas, we know that somebody needs to do something about helping drive that demand, because the applications, the lack of technology, knowledge, the fear of computers, all of those things need to be overcome to get broadband in those homes.

At the same time, in rural communities I had the pleasure of working on a year-long study in Northern California in a very rural area. And one of the interesting outcomes that we saw from that study was that the two areas, the two counties that had very specific broadband leadership created and had been working for three years on a variety of levels, all the way from the political elected levels to grassroots levels, had a far, far better deployment of broadband in the

communities.

And take rates, their take rates averaged about 60 percent compared to other counties in the area which had about 40 percent take rates. So it made a huge difference to have some kind of a demand local leadership effort to actually ensure the sustainability of real broadband deployment totally.

MR. SIEFERT: Excellent. Thank you very much. And I think sadly this may have to be -- if you go quickly, I think we can squeeze in two questions. If you'll go first.

AUDIENCE MEMBER: I'll make it quick. My name is Benedict Evening, I'm with Berlin Atlantic Capital. We're a communications infrastructure firm focused on towers. We raise capital in Germany deployed in the U.S. One of the things that we're trying to do is to get our hands on projects that we have already running where we are looking for return on investment

in rural areas; Upstate New York, for instance, is one of them.

Why wouldn't an agency focus on -- or is there going to be a preference I guess on the agency spending for projects that are already in the workings where the propagation studies are done, where we're ready to launch within 45 days, where we actually bring broadband to rural communities on the project where there is an investor, a partnering with the public funds that may actually help spreading it a little bit further. Is there going to be any preference that you can see coming down the line for those types of projects?

MR. SIEFERT: This is what this process is for, is to take public comment about how we should. And the last panel is selection criteria basically, is how should we weight the various aspects of a proposal. We have to be careful because

Congress has made a decision about spending money. And one of the statutory requirements is that we cannot spend money that was -- you have to demonstrate that but for this capital from the stimulus program, the program would not have gone forward.

So those are things we're going to struggle with. And stick around for our third panel and you can ask your question again to our panelists then. This is going to be the last question and then we're going to have to move to the next panel.

AUDIENCE MEMBER: Travis Cox with Nevada Health Centers. We service 29 clinics throughout Nevada, both rural and urban. And I just wanted to make the point that it's important also for broadband access for healthcare as well.

Because of the rollout of EMR, 27 of our 29 locations have EMR. And it's extremely important that we have the

capacity, especially the middle mile which we have actually used for Eureka and some of the locations that the university has helped us with.

But we have -- there's a lack of healthcare providers out there. And through this broadband access, we can give telemedicine and EMR out to these locations that are drastically underserved for medical and healthcare.

MR. SIEFERT: Good. All right.

Thank you very much. I want to thank my panel tonight. I know some of you had to come even further than you thought you would have to come to get here tonight. And I appreciate you putting in the extra effort. And I'd like to give them a big hand. Thank you very much.