Marian Urquilla>> Good afternoon, everyone.
Welcome back to the Commerce Department on definition day.
Our public comment period on the broadband opportunities grant program.
Speaking for NTIA and my friends at RUS and the FCC, thank you very much for coming.
And I also want to thank our panel.
It's not me.
I don't have anything on.
No cell phone.
You want to try this again?
It doesn't sound right to me.
I want to also thank our panelists, not just this afternoon's panelists but the panelists for the last four days.
You put together some excellent presentations in a short timeframe, and speaking for all the staff, we appreciate that you have risen to the challenge of the one-page slide.

People have just done magazineny sent in that; magnificent in that.
You have -- to get started I will turn it over to our facilitator.
Bob Atkinson, the Director of policy research at the center for teleinformation at Columbia university.
You may also may know him as he was once the deputy chief of the common carrier bureau at the FCC.
Bob?
MODERATOR: Thank you very much.
A good two-sentence bio.
As the Director of policy and research at CITI, I am not an employee of NTIA by definition, so anything I say or do during the program here cannot be attributed to NTIA, RUS, the government or anybody else or even to CITI, just me.
I am responsible for my own comments.
That's it.
The program today, topic is

definition of unserved areas and reaching vulnerable populations. Representatives from a number of stakeholders are here today to share their thoughts and to participate in a roundtable discussion.
I will be introducing the panelists in a moment.
Procedural each of the panelists is going to make very brief comments, building on the questions raised on the joint NTIA/RUS request for information.
I will then MC a roundtable discussion the final half-hour is devoted to people here on in the auditorium or on the webcast or on the conference call.
If you are on the webcast or conference call, send those comments in and we will read them from the podium.
Based on what we've -- the earlier roundtables, I am expecting a lively discussion and new and innovative

ideas from this panel.
And I think as a final observation this is a very open process, NTIA and RUS requested the information and our comments on the 19th, I suggest everyone read that, it really lays out the breadth and depth that NTIA and RUS are undertaking in order to craft the process that meets the requirements of the law as quickly as possible for the broadband stimulus.
Let me introduce our panel for this afternoon.
On my immediate left is Mark Richert.
Mark serves as Director of public policy for the American foundation for the blind, a founding organization partnered of the coalition for organizations for accessible technology, coat, which has 225 national and local organizations dedicated to insuring access to people with disabilities

and video programming technology his portfolio and expertise concerns information accessibility for people with disabilities, particularly those with vision loss.

He interplays technology with health and education policy and federal employment and training policy for people with disabilities.

To mark's left is Matthew Polka. Matthew is president and CEO of the American cable association which represents nearly 1 thousand smaller, independent cable operators that provide video and broadband services in smaller markets and rural areas in all 50 states.

He represents ACA's members before Congress and all federal agencies on communications issues forging federal rules and helping to promote advanced services throughout America.

To Matthew's left is David Arvig, he is the chief operating officer of

Arvig communication systems a full service provider of communication services located in Minnesota.
He serves as the president of the western telecommunications alliance which focuses on telecom providers serving high cost areas west of the Mississippi.
To David's left, Marian Urquilla.
Marian is the Director of human development, living cities Inc. Who has led the expansion of living cities and she has led the expansion of living cities granted programs beyond housing in areas of oriented development and asset living and green jobs.
Before founding living cities she served as Director of the Columbia heights, a network of community institutions working to support families in northwest Washington, D.C.
To Marian's left is Allen Hammond.
Allen is the Santa Clara university

chair and professor of law at the Santa Clara university school of law, fellow of the broadband institute of California and executive committee member of the institute for science and technology at Santa Clara university.
And last but not least is Joanne Hovis, she is the assistant chief counsel, telecommunications office of advocacy she is also president of telecommunications corporation, a public interest communications engineering and planning firm.
As I had mentioned a few minutes ago, the topic for today of this roundtable -- definition of underserved areas -- there are indeed two more panelists here!
My apologies.
Certainly -- that first of all means that Joanne is not last or even least.
(Laughter)
Sitting next to Joanne is betty Ann

Kane she was chairman of the district of Columbia public service commission and served as Commissioner since March of 2007. She has 30 years of service through the District of Columbia government, including three terms as an at large member of the counsel of the District of Columbia and she has extensive assistance in administrative and public policy matters today chairman Kane is representing the utility commissioners NARU and now last but not least.

Cheryl Johns.

Cheryl Johns is the assistant chief counsel for telecommunications, office of advocacy, U.S. small business administration, where she handles all telecom and intellectual issues small business such as celex, ISP's, VoIP providers and the small businesses that they serve.

Prior to joining the office of

advocacy, she was manager of regulatory affairs at France telecom North America, clerked for the U.S. senator judiciary committee and worked on various issues for sun micro-systems.

And I thank you very much.

That was last but not least.

So on we move.

As I was saying, today we are doing roundtable on definition of underserved areas and reaching vulnerable populations.

The -- these are two important jobs -- because NTIA and RUS have a really significant task ahead of them, that they have to accomplish in a short period of time which is the implementation of the broadband provisions under the American recovery and reinvestment act.

And hopefully they will be able to do it in a way that produces the greatest broadband bang for the taxpayer buck.

So at this time NTIA and RUS are working on how to develop programs, adopted rules, develop contracts, solicit proposals, review proposals, and they have a tremendous task ahead of them in a short period of time.

So the purpose of all these roundtables is to provide NTIA and the RUS with the considered thoughts and suggestions of experienced experts through a broad range of stakeholders.

The topic of defining underserved areas and reaching vulnerable populations is important because those two topics are specific statutory purposes.

The BTOP one clearly stated statutory purpose of the BTOP program is to improve broadband access to consumers in underserved areas.

The other statutory goal is to aid organizations that are encouraging

greater use of broadband services by low-income, unemployed, aged, and otherwise vulnerable populations.
So NTIA has a broad charter to make BTOP grants that are consistent with these two people in underserved areas and broadly vulnerable populations and they are needing your input and thoughts on how to accomplish those goals.
So without any further ado, I would ask Mark Richert to step to the podium.
MR. RICHERT: Bob, I was going to tease you and say if you had just used my braille notes you might not have missed those last two speakers. It's good to have multi, multiple ways of reading your notes.
It's also probably not smart, necessarily, to tease the moderator, is it?
I am Mark Richert, director of public policy for the American foundation of the blind and one of

the steering committee members for the coalition for organizations for accessible technology.
And although this is not show and tell I want to acknowledge my colleagues in the audience and if it's appropriate waving hands Karen strauss with communications services for the deaf is here as well as Jennifer Simpson with the American association of people with disabilities and also my colleague boss friend Paul schraeder and these folks were instrumental in putting our written statement together so I want to acknowledge their work.
My task in some respects is easy because when we talk about who are the vulnerable and underserved folks, the statute is clear, folks with disabilities are to be considered but the real issue is to try to get a handle on who these folks R why it is that this population is vulnerable and

hopefully with the remaining period of time here we would have some questions and I would encourage questions for this issue, for sure, because it's vital.
Hopefully we can flesh it out a little bit more.
The question I am asked is how do you use a computer?
It's something folks with disabilities address all the time.
First, how in the world do folks with disabilities, in my case visually impaired or hearing impaired, perhaps.
In the case of folks who are deaf or hard of hearing, if you have never seen video relay technology, it's awesome is the only word.
Even approaching my 40th birth day, I can still use the word awesome, I hope.
The technology is incredible.
Essentially it allows folks who are hard of hearing or deaf to

communicate through web cam regardless of whether or not they could hear.
It's magnificent.
Broadband makes that possible.
Without it folks are simply, literally out in the middle of nowhere, even if you were in a popular area right down the street from somebody, your ability to connect with the outside world is impaired if not impossible in the same way that other folks who have perfectly fine hearing are able to communicate with others.
The case of folks who are blind or visually impaired there are a lot of examples I would love to talk about, don't have time to do it.
One that is easiest for folks to get their arms around is availability of audio content on the web.
Obviously that takes a lot of pro verbial band width so without the ability of broadband, the pro

liveration of information in those formats other than simple print, or text on the page is impaired.

Finally the fact that in the broad band context, since broadband is quote, end quote always on, folks with other disabilities that make it difficult for them to get around their community and transportation is certainly an issue, driving in my case, but other folks who may have other issues, the fact that you were able to have a direct access to something that is always available, quote, end quote, always on, means that especially in the case of emergency information this is very critical for folks to have access to it.

So those are just some of the ways in which folks with disabilities use the web and how broadband benefits them.

The question is, okay, if that's how folks use it, how many are really

doing it?
We can perhaps talk about this more.
We fleshed this out a bit in our written statement but essentially it's about half.
About half the percentage, I should say.
Half the percentage of folks who are using the web without disabilities are folks who are using the web who do in fact have disabilities I believe the numbers in 2003 were about 62% of the folks are generally making use of the web when it's 40% with folks who do have disabilities.
Why is that?
You can do a weekend discussion about the factors for why there is this disparity in usage of broadband.
I will mention one that is on our slide and frankly of all of the talking points I can give you, sound bites, this would be perhaps the most compelling.

Something like 77% of folks with disabilities are not in the labor force.
They don't have jobs.
How does that compare to the rest of the population, about 29%.
You start looking at other factors in terms of income, education level, the disparities are across the board.
All of those disparities make it -- impair the ability of folks with disabilities to have access to broadband either because of cost or because of technologies that are necessary to be able to actually interface with the computer.
On down the line.
My concluding thought to you is this.
I think the statute is clear that the intent of dollars to be made available is to serve folks with disabilities and -- but I think when we talk about definitions, the key

is not to define or worry about the diagnosis of folks with disabilities.

I think we are hopefully past that.

What we really ought to be talking about are the structural barriers to the provision of better access to information, and that's going to not only involve the availability of broadband itself, but the technologies that ride the information superhighway.

And we need to make sure that this program as it moves forward gives appropriate account not for what is wrong with the person with the disability but frankly what is the limitation or impairment of the technology that uses broadband technology.

So hopefully we can think in those terms.

Why is that critical?

Because most folks are not like me, most folks who are not visually

impaired are virtually not totally blind.

Numbers suggest that we have 21.2 million Americans who say they have trouble seeing even with glasses or contacts.

Deaf folks can absolutely benefit from video relay but there are 37 million folks who experience significant hearing loss.

15 million Americans that say, "my gosh, I have trouble physically moving around such, that being able to have other ways to interact, especially through technology may be a benefit to me."

We shouldn't be thinking in terms of defining us as much as it were pointing a finger to the problem, the problem of accessibility of technologies as well as the availability of broadband.

Thank you very much for inviting us.

MODERATOR: Our next speaker will be Matthew Polka.

MR. POLKA: Thank you my name is Matt Polka with the American cable association.

In his inaugural address president Obama vowed that the U.S. would build quote, "digital lines that would feed our commerce and bind us together."

End quote.

The American cable association stands ready to help accomplish that mission.

We are more than 9 hundred small and medium-sized cable, phone and municipal providers.

We serve more than 7 million households and businesses, primarily in smaller markets in rural areas.

We provide video, high speed broadband, and phone to many customers who have no other means of receiving these vital services.

ACA is small business.

More than half of our members serve fewer than 1 thousand subscribers.

We know first-hand the sparsely populated and geographically challenging communities where current economics make providing broadband impossible.

Fortunately, funds from the NTIA and RUS programs may now change that equation if allocated properly.

Our members are really in the best position to put such dollars to work to make affordable high speed internet available to every American, particularly in those unserved and underserved areas.

We have financial operational and technical expertise, providing broadband facilities in small towns and rural America, places policymakers intended to be covered by these programs.

We already run past homes, local hospitals, police stations, fire departments, libraries and schools. And we already pass the businesses, factories, and offices in those

towns.

More over, our members have shovel ready, last mile and middle mile projects that can deliver broadband to unserved areas and importantly increase speeds in under served areas by bring more internet fiber back haul to rural America lowering back haul costs and increasing existing speeds.

The White House, Congress, and the American people want to see quick action.

ACA members can do so in a cost effective way in unserved and underserved areas.

The definitions of unserved and underserved should be simple and generally based on speed.

By unserved ACA is considering a census tract in which broadband service with speeds of perhaps up to 3 mgs downstream and 5 hundred kbs upstream maximum transmission are made to 50% of household ins that

tract.

By underserved ACA is considering a census tract in which broadband services of 3-5 mgs downstream and up to 1 mbps upstream multiple transmission are not available to 50% of the households in that tract. These definitions must be crafted in such a way that they encourage the distribution of broadband funds where there is demonstrater need and take into account the existing regulated entities, not penalizing companies through private financing and sweat equity have brought robust broadband to their communities.

By vulnerable population ACA means those that are unable or unwilling to take advantage of broadband whether due to live in an unserved area or economic or educational reasons, including unfamiliarity. Such populations exist in urban and rural settings and funds should be set aside to meet the needs of both.

Our members are uniquely situated to carry out the goals of the broadband stimulus programs, and we are ready to build the digital lines that bind us together.

Thank you very much.

MODERATOR: Our next speaker is David Arvig.

MR. ARVIG: Good afternoon.

I am here representing myself as chief operating officer of a telephone company -- I shouldn't say telephone company, we are a communications provider but also a western telecommunications alliance, and we kind of jointly went over these notes.

My company is a family-owned and employee-owned company in service since 1950 we are a full full service provider offering voice, video and internet service up to 40 thousand customers.

We also happen to be a member of the ACA.

I didn't consult them with my comments but I hope you won't have a problem with them.

NTIA and -- MODERATOR: Can we put up David's slide, please?

MR. ARVIG: NTIA and RUS are dealing with a finite amount of resources and they must decide and craft regulations to decide how the money will be disbursed so I appreciate NTIA and RUS for giving me an opportunity to participate on the roundtable on the definition of reaching underserved areas and reaching vulnerable populations. Today's topic is not an easy one to define.

The earlier panel talked about the definition of broadband and the panel after this one is seeking to find rural and unserved areas but one thing we know is that rural consumers deserve broadband.

The definition of underserved should tie into the FCC's evolved

definition of broadband.
Currently that is at 768 for basic broadband tier 1, if you want to look it up.
We believe that the definition should be the beginning point and anything between it and 12 mg defined as unserved areas.
We don't think it should be higher than that, groups have talked about 1 hundred mg, we know in the future that is coming but looking at the short timeframes, it's not necessary.
It's important for economic development, rural and non-rural areas, job creation, and United States global competitiveness.
Looking to the future needs of consumers with a network that won't require plowing the ground for another year or two would be good.
We don't want plans to meet those minimums, but if somebody is going to be putting a plan together, it

should be looking towards the future.

Reaching vulnerable populations. When I thing of vulnerable populations, I think of small children, homeless, probably elderly and handicapped.

I don't think you want to limit that to just -- if you think about it small children probably don't need broadband, I don't think yet. Homeless probably just want food, so we already have programs that are created on the telecom side called lifeline link up.

If we would expand that program to include broadband, I think we could solve some of these without, you know, totally creating something new.

So that's about all.

MODERATOR: Thank you.

Our next speaker Marian Urquilla.

Ms. Urquilla: My name is Marian Urquilla and I am here representing

living cities which is a national collaborative of foundations and financial institutions working towards helping community development in the country's major cities.

We look at underserved populations not from a technical point of view but really thinking about the quality of use that people have.

So our definition would go like this, individuals in groups who don't have ready, convenient and sufficient digital access, either because they have geographic or income or educational or accessibility barriers and isolation.

The piece for us is the gap between having generic access and open access, open all the time, to having very time-limited and compromised access that limits use that people can make of the internet so that in public settings, it's hard to use

the technology for matters of just healthcare and finance or even educational outcomes.

So we think that is actually something that needs to be looked at when we go from unserved to underserved.

And on strategies to expand access really pushing that NTIA use its resources in its bully pulpit to push for layering with focuses not just on coverage but incent tivizin good populations that so far have not been able to join and benefit from technology.

MODERATOR: Thank you very much.

Our next speaker is Allen Hammond.

MR. HAMMOND: Good afternoon.

I am here representing the minority media telecommunications council.

We are very much interested in timely equitable deployment.

Given the history of inequitable deployment, that is something of great concern for this particular

time.
Cable television came in late to the south bronx 20 years after it came to New York.
Concerns about electronic red lining, digital divide with regard to computers on the internet and most recently digital inclusion with regard to broadband it is clear that there are still terms about access and the equitable nature of it.
Definition to dictate the outcomes, with the broadband speed is too low, you undercut incumbent systems to improve, you also waste resources by installing already obsolete technology.
Certainly definitions are problematic and we have seen that with regard to deployment, in the zip code methodology that was used, over-the counter access, and with rural ineligibility you permit areas in need and mapping in terms of oversight with the management -- go

to the next slide?

Well, MODERATOR: Only one slide.

MR. HAMMOND: Well, they took the wrong one.

Go figure.

Certainly with regard to rural areas we would propose a qualified definition, historic rule of minorities settlement, African American, Hispanic and any consequences of waste that have not yet access to number of different services and we would like to make sure those are included.

Certainly with regard to rural areas in terms of county density.

One of the things that has happened is geographically extensive counties have areas which are close to SMA's but are not part of the SMA's and they have not been included in the definition of rural nor are they receiving service based on proximity to the SMA.

Certainly those would be included

and that would support the remarks made earlier by the grange.

We should also include among the definition communities with the single provider.

Receiving service at speeds below the minimum is one of the things that has been defined in California as a part of underserved areas.

Americans with disabilities have to be factored in, in terms of accessibility and a number of states, California and Michigan in particular and also cities, Philadelphia and San Francisco have acknowledged that socioeconomic characteristics should also include low-income, affordable access, and low rates of adoption.

Thank you.

MODERATOR: Thank you.

Our next speaker is Joanne Hovis.

MS. HOVIS: Can I ask for my slide, please.

I am going to stand a bit to the

side here because I am too short for this podium.

Thank you I am Joanne Hovis, a board member of the National Association of telecommunications officers and advisors, which is the association of that represents local governments and local communities in communications and our message is that we understand that this piece of legislation -- is that better? -- we understand that this piece of legislation will not finance or build the kind of broadband we need everywhere throughout the United States, but we hope that it will finance and build many experiments in the kind of broadband that we will need in the future.

The international standard for broadband is so far beyond many of the speed definitions that have been proposed until now, that we really risk conceding to the rest of the world that we are satisfied to be

number 17, which is where we are right now, or maybe number 20 or worse down the road.
That even if we cannot build 1 hundred Mbps symmetrical or a gigabits symmetrical or where they are heading in Japan or China which is 10 gigabits symmetrical, we should at least be establishing that what is served at that level is where our competitor nations and competitor towns and counties are, and then we determine how we are going to get there, and it will be with many mechanisms but underserved is failing to be at the same level as those who are served.
America's cities and towns and villages and counties regard broadband as critical infrastructure.
When we talk about high speeds we are not talking about this for delivery of entertainment or more television channels, this is a

utility that is essential to our economic development and our community development.

And I think one of the things the to keep in mind, when we talk about speeds and this is very significant, this piece of legislation is first and foremost a mechanism for creating jobs in the United States. If we define underserved or served at a very low level, we are potentially risking that much of the money that is spent in the context of this program will be spent on equipment manufactured outside of the United States.

Creating jobs is something that is done, when we do construction, when we build wireless towers, fiber and other types of infrastructure in the United States as opposed to equipment elsewhere and that is another consideration as America's local governments rightfully note the incredible need in our

communities to create jobs immediately.

Another key criterion for determining what is underserved is affordability and Chris of San Francisco spoke eloquently this morning but clearly this can't be a matter just of speed, it also has to be a matter of whether services are accessible, available and affordable for various communities.

This is participant of the reason why we would urge NTIA what we see as an emerging conflict between Metro area interests and rural interests.

The law is not about serving only one over the other, to the contrary it is explicitly about serving all different kinds of projects and all different kinds of areas in the United States, and that is why we would like to see an attempt made to judge applications on their merits, whether they come from rural, urban

or suburban areas.

So long as there is an element underserved and so long as the applications for projects that are sustainable, feasible, innovative and enable us to experiment with new ways pointing to a way of communications future.

There is not enough money to meet all of our needs but there is enough for us to be able to experiment with new ways of broadband and communications.

Finally, let me very quickly say that part of being underserved from our perspective is that if users are limited by certain kinds of factors, and here we talk about social, political, economic or commercial, social and economic speaks to the affordability, accessibility, differential inclusion, digital literacy component but there is also another aspect of what is limited, that is if a service provider or

network owner limits the use of a network or of a service by consumers by monitoring or manipulating or controlling in any way their transmissions, then that is also under served.

There may be a very capable network in a given community but the service provider may choose not to enable certain kinds of applications or the service provider may choose only to sell relatively low band width services despite the network is capable of more.

The service provider may choose to enable only high speeds for download but not for upload.

That is a limitation and even if the network is capable of more, the owner of that network has chosen not to offer more, and that is also underserved.

Thank you.

MODERATOR: Our next speaker is betty Ann Kane.

MS. KANE: Thank you.

Good afternoon.

I am here representing the National Association of regulatory utility commissioners, or NARUC, as it is known which is the organization which represents the utility commissioners, public service commissions, public utility commissions, have different names in the 50 states, the District of Columbia, and the U.S. territories.

Our slide, which is up, presents the opinion and assumes the position of NARUC.

Our executive committee is in the process now much finalizing their approval of this.

And a little caveat, I may add additional thoughts and comments that are solely my own but this slide does represent NARUC.

First of all, the most important point we want to make is that states have a critical role in identifying

unserved and underserved areas because states have long experience already in identifying geographic areas that are unserved.

And our definition of unserved is that there is no facilities-based internet access other than dial-up or satellite-based internet access.

Many states, between 20, 30, 40 states have already in place some kind of either broadband assistance program or broadband grant program, broadband commission that has been in place to look at where the unserved and underserved areas are.

So we start with a base of information, whether or not formal mapping has been done, states start with a base of information and experience to be able to do some of this identification.

States also have experience in identifying communities that are underserved.

This will vary from state to state.

What a state considers underserved could be a geographic area, rural areas, it could be a demographic definition where particularly in an urban area you may have an area like public housing and other pockets of poverty that are underserve because it is not affordable or buildings are not wired properly to receive it, et cetera.

Therefore we believe states should have discretion to recommend approval of grant applicationings for broadband services particularly to business, educational and public facilities that might exceed some national minimum broadband speeds where appropriate, for example, developing an industrial park, developing an economic develop zone. If you are developing a distance learning program through your community college system or your public schools, if you have a different broadband need that may

exceed some kind of minimum that would say, yes the area is served but it is underserved, so that would be a good project or use.

Secondly states have the authority to recommend priority of approval of projects and programs that promote access, availability, delivery, education, and affordable usage of broadband technologies and services for low-income communities.

I think we are familiar with the figures that show that at the 1 hundred thousand dollars household income and above, that 85% of those households have broadband access at home.

But when you get down to the bottom tier, households with family income of 20 thousand dollars or less, you have about 20% internet adoption and use at home.

And my personal view is that adoption at home and use and access at home is key to having equal

opportunity.
Being able to use it at the library is wonderful, being able to use it at the recreation centers is wonderful, but they have hours and restrictions, so those populations are underserved for that geographic area, is underserve federal that is the only area that there is.
Probably the issue of unserved and underserved probably would have been better off if it would have included the Senate language on tax credits, because under that legislation there was a definition of unserved or underserved unserved was where there was none and underserved they defined census tracts where the household income was below a certain percentage.
I don't know what the percentage was it was below the percentage of the statewide median income or it was an area that was located in a state designated enterprise zone or an HUD

designated development zone, so there was a definition there that recognized that income and demographic matters indices were just as important as geographic indices.

And that affordability was a main concern and goal.

Fortunately those tax credits for many reasons were not included but I think it could give some guidance as NTIA and RUS go forward in their definitions.

Thank you.

MODERATOR: Our last speaker will be Cheryl Johns.

MS. JOHNS: Good afternoon.

My name is Cheryl Miller Johns and I represent the office of advocacy of the U.S. small business administration.

Created by Congress in 1976, advocacy of the voice of small business within the federal government's legislative processes.

I would like to thank NTIA, RUS and FCC for efforts in coordinating what have been thoughtful and productive panels as president Barrach Obama said last week is small business is the heart of the American dream.
As such it is important that small, competitive telecommunications companies have the chance to participate in our national broadband plan.
In addition, it's important that broadband is available to small business customers at affordable prices.
This is where the definition of underserved is critical.
We need to agree to a minimum level of appropriate technology to designate an area as served, and to figure out how to connect those areas of the country that are below the poverty line.
These areas, whether rural, urban or somewhere in between should have the

same access to broadband as the rest of the nation.

It is important to remember that not all small businesses are the same, and those with operations that rely heavily on content may need broadband width.

To address this issue, the language needs to ensure that appropriate service levels will be available for businesses so that all small business customers have the opportunity to see their operations grow.

Today, many entrepreneurs started up their businesses in their own homes, so the line between residential and small business customers is blurred to a certain degree.

This further highlights the need for an accurate broadband mapping system, so that we can see what areas have what type of service at what cost.

Moreover the definition should be

quality neutral.
Our track record on broadband needs improvement and we should welcome new ideas in underserved areas and strive to fill these areas with competitive offerings.
Lastly, our small businesses need the support of their community anchor institutions.
Therefore, the language in the underserved definition should account for the percentage of community anchor institutions that have an adequate level of broadband connectivity.
Thank you again for the opportunity to speak on behalf of the small business community.
We look forward to working with sister agencies RTA, and FCC to make sure that small businesses of America is has a digital pulse.
Thank you.
MODERATOR: Thank you panelists.
It was a very interesting discussion

and Iowa -- I will lead a roundtable discussion.

First of all I will ask if panelists have any strong negative or positive good ideas or bad ideas would anybody like to react.

?

Joanne?

MS. HOVIS: How's that?

I was very happy to hear the discussion of small businesses, because from a local government perspective this is incredibly important as well, and this is another area where experimenting with high speed broadband that makes us competitive globally is really, really important.

Symmetrical speeds made possible home based businesses particularly in this economic environment. Someone could start a business on their home and be on the map reaching out to customers immediately without hiring an office

without having to have a staff or receptionist or anything else.
They could have phone service and a broadband connection that enables them to upload and download at symmetrical levels if they have broadband speed.
That is essential for new home based businesses.
It's important for small businesses that may appear to be served by the kinds of numbers we see when we see some of the data on broadband but in many cases in many cities and towns where there is DSL available, the systems are tapped out, small businesses cannot buy service.
Cable networks do not have small business or business areas as part of their traditional footprint so it's much harder for businesses to get cable service than it is for residence and it's very important that we keep small businesses in mind.

MODERATOR: Yes.

Matthew?

Matt?

MR. POLKA: I was going to build on that and agree.

The building of small businesses is very important and I was happy to hear that encouragement because the fact of the matter is, it's not going to be big companies.

They are going to be taking broadband to the end of our communities it's our smaller markets and rural areas.

It has to be encouragement technology uses to get the small businesses out into the market using broadband.

So I am certainly in favor of that.

I see the microphone being grabbed by David.

MR. ARVIG: I wanted a clarification, you wanted many small experiments, was that right?

What exactly did you mean by that?

MS. HOVIS: My point was to the fact that there are limited funds available here.
It's not sufficient to build Hiban width, broadband or even low band width broadband to all the unserved ununderserved so rather than suggestSCLUGD any particular class by serving levels, what we would like to see is to experiment with the money that there are areas rural and urban areas all of which have potential for new kinds of inknow separation and experiment that will show us new ways of using broadband and show us new ways of enabling consumers and developers to inknow separate and point the way towards a communications future where we clearly have had a certain level of market failure thusfar.
This might be used to stimulate new experiments.
MODERATOR: Do I understand your proposal for experiments to imply

that they would be very concentrated geographically, that they would be well funded, but would not cover vast swaths of the country?
With the limits on the money that is available?
MS. HOVIS: I think that has to depend on the grant applications and I would hope they would be evaluated based on their potential for the innovation and the reach they will have, how many people will be served with them, based on how high they will push band widths and how much they will deed employ scaleable flexible technology that is are future-proof but also how sustainable they are and how shovel ready they are.
I wouldn't put geographic limits on it, is my point.
MODERATOR: But you expect -- a lot of discussion has been talking about speeding up networks, making infrastructure investments in fairly

conceptually broad geographic areas, bringing maximum service to the maximum number of people with existing -- prior existing technologies, that has certainly been an underlying as far as a lot of discussion -- experiments to me somehow has the concept of being, you know, really intense but in a smaller number of people being accepted?

MS. HOVIS: Let me give you an example.

This is just by way of an example. I would hope there is room within implementation of the act -- by the way I think the act does contemplate this for experiments in you are urban areas where a high concentration of people will be reached in a small geographic area but with experiments with Hiban width scaleable technologies that are comparable to what is being deployed in Europe and the Pacific

Rim so potentially fiber optic in the home.

There is not money in the act to fund fiber act but there is not enough money to fund DSL throughout the United States, either.

And I would hope that we will see experimentation.

By that I mean we are not just going to fall to one form of technology or one type of user or one type of service provider.

MODERATOR: One area I wanted to sort of poke at is the act says the purpose is to provide improved access to broadband service to consumers residing in underserved areas of the United States.

The discussion I have heard this afternoon, the underserved sometimes applied to areas and sometimes to individuals.

Can someone sort of -- are those the same or are they actually very different things?

MS. KANE: I think picking up on what Joanne said, you will very often particularly in urban areas hit your underserved areas and underserved people concentrated in the same area, if you will.
You were going to have certain sections of cities where -- and I think that's why the Senate bill looked at census tracts and looked at geographic areas where there were concentrated areas of underserved people, maybe language non-English or limited English language speaking who are dependent on social services for access and et cetera. That is one aspect of it.
Rural areas who have subconcentrations of low-income folks, also.
I think it's a combination and NARUC's position is that it should be fairly flexible in that.
But I think it's both geographic and demographic.

MR. RICHERT: You asked the question and relateded to this latest question of yours I was struck by the commonality of means about how we shouldn't be siloing these issues, whether it's urban versus rural or small business versus large business in the disability area you cannot categorize, disability does not discriminate, the question of accessibility crosses all of those issues, language issues, language minority issues, fill in the blank, age, it's all over the map.

So the take away for me is not only is it true in the area I am concerned about but also with my colleagues here, it's not about finding little categories whether it's geographic or anything else but thinking about this in a holistic way.

And frankly I don't understand why we would spend one dollar on any kind of technology or service that

wasn't accessible.

MS. JOHNS: I was pleased to hear folks discuss issues aside from just the rural issue.

I have been hearing a lot about rural.

In terms of the definition of underserved it is going to be a broad definition and going to encompass a lost factors and it's important that we keep a lot of that in mind and not leave any of those factors out necessarily.

MODERATOR: Marian?

Ms. Urquilla: I think the key is not to limit it but to frame and calculate it in terms of uptake, whether it's issues of accessibility for all the reasons or because of financial isolation, then you are getting an underserved area whether or not there is coverage in a generic frame.

MS. KANE: I think that's a good point because we have been talking

about infrastructure and there is also a lot in the act about adoption and sustainable and take rates.
So the the president would be disappointed if all the money went for -- like wireless.
MODERATOR: He asked -- he talks about underserved areas and also encourage use by vulnerable populations.
That's where I was getting at in terms of -- are underserved areas and vulnerable populations are they separate or combined?
I mean again we are trying to help NTIA and RUS and particularly NTIA.
MS. KANE: You can have underserved populations in underserved areas that you can concentrate.
Cable modem.
Many cable franchises have not built out in industrial areas and small commercial areas.
They are serving residential.
That has been their mandate.

This way you can have an underserved area there where lower income and small businesses are.
It's a combination it shouldn't be sliced and diced.
MODERATOR: Allen?
MR. HAMMOND: If you look at areas like Philadelphia -- if you look to the experience of cities like Philadelphia and San Francisco, that tends to get municipal Wl1il0-Fl1il0 in the community as well as states like Michigan and California, you see they addressed those issues and they don't perceive it as being an either or situation.
It's the combination.
In West Virginia when it talks about criteria for eligibility, that's why I went into looking at the thing that may be part of a definition of underserved and those factors may fall out differently depending on which application, which area, which group but all those factors should

be in there.

MODERATOR: I will break for a second and suggest we will be starting questions in a few minutes.

So if people in the audience would like to step up to the microphone, we will go to the four microphones in the audience area so we can start that up.

Underserved implies not served.

I heard a couple speakers actually start from the idea that, what's -- if -- whether it's 10 gigabits or 768 kbs is served does it help to first define what is served in terms of broadband in the theory that something less than that is underserved?

MS. JOHNS: I think it is and I would be interested to hear more dialogue on what type of a baseline would be appropriate.

Where we would even sort of start from, because I think that's important, moving forward.

MODERATOR: That started with this morning's discussion with, what is broadband for purposes of this act. If it is broadband, it implies that it is the product that is served. Then you get into take-up rates and things like that as well.

MS. JOHNS: Correct and I am not an engineer by frayed so I would be curious to hear from the rest of the panel or the audience as to what speeds they think would be appropriate or what combination would be appropriate.

MODERATOR: Last two comments?

MR. ARVIG: I have a comment on the rural and underserved my background is I am a rural guy but also with an economics background the reason the people in urban areas are not covered in high density is they can't afford to pay for it.

If they can figure out a way to pay for it the market should take care of it.

MR. HAMMOND: I would disagree it's not just a matter of affordability it's how it's used or whether the people have facility to use it or what it is used for.

If you look at Philadelphia if you look at how comprehensive the program was in using Wl1il0-Fl1il0 they were interested in making sure there was an ability of people to understand what it was used for and why it would be important to them.

We also did a consensus conference in Santa Clara where we canvassed people in the surrounding 42 juries -- jurisdictions as to whether it was something they could use.

So I would caution people strongly to denote the need of urban areas being solely one of affordablity. It is not.

MR. ARVIG: In rural areas it's affordability as well.

MS. HOVIS: Availability is not only available in -- in rural standpoint

I had conversation that people feel that it is grossly unfair that any of this money would go to urban or suburban areas until everybody in America has a low level of DSL, nobody should have anything higher than that.
I don't think that is what the act contemplates.
The act is specific that we are trying to create multi-sectorial purposes that would create educational and healthcare and all sorts of needs and in urban areas we need higher speeds and symmetrical speeds and scaleability in order to enable all of those applications.
Let me suggest something about underserved if DSL is available in community that is served with respect to DSL but it is still underserved with respect to being able to compete with the cities in the Pacific Rim and some of the suburban and rural areas in the

Pacific Rim and Europe that we have to compete with to be globally viable.

We may be served with respect to a particular type of technology but not with respect to higher speeds and if there are meritorious projects proposed for stimulus funding that would deliver far greater speeds and enable innovation then to say, well, you already got DSL and do something that would enable other things saying, you are already served I think we are missing something important about what the act is trying to do.

MODERATOR: I will stir up the pot a little bit by getting some stirring from the audience.

I direct the audience members, particularly the questioners to the clock at the front.

Basically we would like you to make your comment and or ask your question in one minute and if you go

substantially beyond the minute, I will be the designated rude person and ask you to reach a conclusion so be aware of the time, it's a countdown at the beginning of your comment or question, state your name, affiliation and indicate whether it is just a comment or a question, and if it is a question, if it's to any particular person so that person can begin working on the answer as soon as possible.
So we will go with number one, first.
>> Joseph miller with the minority media and telecom council.
Don't have a problem with deferring to the states in defining underserved communities but I just want to ensure that NTIA, to the extent that that definition affects small and disadvantaged businesses, that NTIA ensures state regulations and state procurement rules and oversight of contract provisions

don't thwart the STB and 8 a objectives of the federal regulators.

MODERATOR: Thank you.

Microphone number 2?

>> Is it on?

Chip gaskins elevation wireless here in D.C.

Question probably for -- unfortunately we are doing this backwards we were not going to have a national broadband map before we allocate the money, so a question about how you determine unserved or underserved areas in the absence of that data, how would you guys advise NTIA and RUS when they are looking at an application on how they would determine which core data service you use.

I was looking in Massachusetts and according to the data base, the area I was looking at.

Four routers.

I looked in the State of

Massachusetts and the John Adams institute had done a study that said they were no providers and I did a little mystery shoppers myself and found out there was one provider.
So if you are NTIA or RUS how do you reconcile the disparity of data sources.
MS. KANE: I think that's a very good point.
I think almost all the states, but the FCC data is at such a high level, it's at zip code level, it's not useful for this type of purpose, because there are many areas, rural areas and beach areas within a zip code but there really is no service.
Many states -- Massachusetts is a good example, California, other states have done fairly extensive mapping, Virginia.
They know down to the block level, the CONUS block level what's available; the census block level what's available.

And it is a challenge.
And of course there is money in here also for states to do their mapping projects.
I think NTIA should question what the criteria that the state or locale is using and it would depend, of course unserved would be that there is nothing there but the state should also apply for the broadband mapping money just as soon as possible but even before they do that, if there is going to be different definitions of what is served and unserved that's going to be hard to get a consistent map.
When they aggregate it into a national map they will have to come up for those purposes some type of common definition as they take the data from the states and put it into one big map.
And it would be changing.
MR. POLKA: Your question is on target and everything is happening

at once and they are working on a broadband strategy next April when this money would be out the door in addition to the mapping process.
So it is a process that will have to work together over time.
One of the things that I hope will provide information in the meantime, maybe the information that the FCC is now starting to gather on the census track, with the form 477, where they are getting more detailed information on census track by census track basis to determine the level of broadband in the community. So it may be something to help address it but it will take a while before we build this data base and make use of it.
MS. KANE: Plenty of jobs in the meantime collecting data.
MODERATOR: When we ask questions and the thing to remember is that the NTIA and RUS in particular and FCC have a short timeframe in which to

do something so the point of the readily available data was particularly pertinent.
What can they use right now.
>> In the short-term.
That's my question.
If you are going to give the money out in May, June, July, which I heard NTIA say, and you don't have that data, where do you go?
MODERATOR: Well, have you had more than a minute with the questioning.
Number 3, please?
>> Okay.
Mark DeFalco -- MODERATOR: Let's go to 4, and we will go back.
Try number 3 now.
>> No Mike.
MODERATOR: Go to number 4.
And we will fix number 3.
>> Mitzsko Rivera.
On the issue of the states, I want to point out that most states do not have a broadband department F. They have information technology they may

look at serving state interests, the PUC's do not regulate broadband services.

In the states where they have done cable modem and broadband requirements they have not done a good job in reaching the unserved and underserved in the states where they wanted that prioritized they put the language and that language is not in the broadband section.

The census tract idea is generally good but there are pointings whether those are multi-dwelling units, apartment buildings or public buildings like this where you cannot get various forms of broadband service, so I would keep that in mind to have some mechanism.

And the question would be if the panel or folks at NTIA want to comment between ACA and OTOA ideas how would people feel about if you had a definition of unserved and underserved is based on speed and

it's 100 Mbps or less would be underserved and less than 10 Mbps would be unserved.

MODERATOR: There is a question who would like to take it?

MR. ARVIG: Your definition would be 99.9% of the country would be underserved and probably 75% would be unserved?

>> And I think given what people have talked about, how we relate to the world, the kinds of broadband uses we have, in fact, that's true.

MR. ARVIG: It's probably true, but we have 7.2 billion dollars to spend, and we would need 7.2 trillion to spend -- probably.

>> And what the previous panels have talked about is this is a downpayment.

We don't want to build the broadband version of bridges no nowhere.

If we are looking at downpayments to the future, how do we get to 1 hundred Mbps, and what about places

where you don't have 10.

If you are a farmer and want to sell your product, those kinds of things 1.5 KBS isn't going to do it.

MODERATOR: Is this where the experiments play out.

MS. HOVIS: I think most of the country is underserved relative to our competitor nations and parts of the country are unserved relative to the parts of the country that are underserved.

That doesn't mean that the money should go to only the very high speed projects.

It should go to a wide variety of different projects that meet the goals of the needs and purposes of the bill, but defining underserved at a very low level just as though we concede we are not going to shoot for what our competitor nations are doing, we introduce the internet to them but we will leave it to them and we will go for the technologies

from 2003 and happy to sit right there.

Maybe that's a broader picture.

The bill can't solve all of our broadband problems but I think it's important that certainly America's cities and towns and counties feel it's important that we have that broader perspective.

And when we talk about low speeds we are in a completely different order of magnitude than our competitor nations.

MR. POLKA: We look at speeds and definition of underserved for a number of purposes but one primary purpose is knowing that 7.2 billion can't answer every problem is how can we get more internet, more fiber, more back haul deeper into our communities that broadband providers can access.

And if we can do that, we may not get to the level you want to, but we can at least get more out there

which is part of the goal, is to get more broadband out of those areas. We get more interstate, we get more internet, more back haul we could begin to solve the problem.

>> Again, fur building it out there you want to build it out that is not set so low that it won't be able to evolve.

And I will quickly add that where you have broadband speeds in cities and those things, that inknow separation helps you develop cost and business models that makes it possible to figure out how do we keep pushing it out?

And when you have those drivers, whether it's free Wl1il0-Fl1il0 to force your competitors to get better, that's probably in the bill as well.

MODERATOR: You have had two questions.

Number 3?

>> I think we are working now.

Yeah.

Better?

I am mark DeFalco with the Appalachian regional commission.

Two comments, one in reference to the earlier question that was raised over here.

I think an ideal role for the states to play is to identify the unserved and underserved areas as a place to start for where these projects could go and the deployment could go. My comment has to do with the concept of unserved or underserved and availability.

What we found out in Appalachia is available anywhere if you want to pay 3 thousand dollars a month to get T 1 access, you can do it, it's available but the problem is it is not affordable.

The key is to make something that is affordably available.

So what we may be able to do is put into the process an affordability

test so when grants guy in and dollars go out the door, service will be put in a rural area that doesn't just give broadband access it gives affordable broadband access that will be able to be utilized by a majority of the populace.

Thank you.

MODERATOR: Anyone want to respond? Can you read in affordability into the act?

MR. HAMMOND: Makes perfect sense and one of the issues that have been clear in looking at municipal is viability over time not just affordability in the short-term but a business plan that means you will be in business five years and ten years down the road.

The city itself is the major consumer of the service and therefore creates a business case that is more likely to continue the service and operation over time.

MODERATOR: Betty Ann?

MS. KANE: On that, I think you were right on and people used analogy of the interstate highway system, the Eisenhower bill.
As I recall, I was not quite aware of but there was an actual prohibition of having tolls on the interstate.
It was built with federal money and was to be available to all.
Tolls have changed that now.
I am not suggesting that it would have to be free but you want to build something that is high speed that is out there, but nobody can afford to use it.
>> My name is (inaudible). I am an attorney at the American justice system.
I don't have a question but I have a comment and that is linguistic isolation, limited English proficiency and poverty affecting Asian American communities like the mung, Vietnamese and Korean make it

unlikely that use in these communities will not improve without government act.

The executive order 13116 provide the federal government and recipients of federal funds properly address how limited English proficient individuals can effectively participate in any federally conducted or assisted program or activity.

As funds are disbursed and programs are designed Asian American justice center strongly urges that the title VI requirements are considered along with the afore mentioned barriers to ensure that affected Asian American communities are among those given priority as unserved and underserved.

>> Jackie McCarthy, PCIA wireless infrastructure association with a brief comment our owners and operate and manage 125 thousand facilities that provide the back bone to

broadband services to consumers and the public sector, wireless is the fastest and most cost effective way to provided an additional broadband services in areas where availability and competition is lacking.
And therefore we urge that the definition of underserved should include any area in which there is only one provider of ubiquitous wireless broadband services.
The problem of underserved communities is at least as critical as that of unserved communities because it touches on such a large portion of our population and use of BTOP funds to address the problem of underserved communities would have a significant economic and social impact.
Thank you.
MODERATOR: Thank you very much.
Microphone 3.
>> My name is farid Buena more I work at ACORN which advocates

low-income minority groups.
Low-income and minority groups are the ones most affected by the digital divide which is why I want to bring -- kind of highlight that.
Unserved and underserved should not refer to simply had people mapping for the obvious reason of affordability but also because of literacy, the literacy gap.
We should treat unserved and underserved communities when we consider unserved and underserved communities we need to consider if they are internet lit rat, computer lit rat and grants issued should focus on bridging that gap, and I would love for betty Anne to give her comments because I think she thinks the same thing.
MODERATOR: We should ask someone who doesn't agree with you.
MS. KANE: Yes, actually NARUC has recently pass add resolution on digital literacy on supporting and

encouraging programs there and has passed a resolution which I authored supporting the proposed pilot program at the FCC to add broadband to the eligible services or set up a broadband program within the lifeline and link up program as one additional way of trying to see what are ways to reach this divide, to bridge this divide.

The children through the E-ray program schools and libraries so children have perhaps internet in the library at school but they don't have it at home so there is a divide between them and their classmates who do have computers and internet access at home.

So I personally think one appropriate use and way of bridging this divide and using these funds would be laptop programs, accessibility programs, adoption programs, use programs, et cetera.

MODERATOR: Al?

MR. HAMMOND: I want to make sure that we are not talking about one group and one geographic area, mung's children in rural areas and California are just as in need of literacy with regard to the internet as inner city children in Washington, D.C.
It is absolutely essential to remember that we are all Americans, that we are not fighting over who gets what portion of the money but we are fighting over making sure that all Americans can access, who need access.
MODERATOR: We were at microphone number -- that was 4, right?
So we were at number 1?
>> We are now at 4.
MODERATOR: We are now at 4.
I can't count.
>> Not a problem.
My name is dean saligas and I represent mayor Daly and the representatives of Chicago.

The comment I am making is based on a recent study from the University of Illinois and University of Iowa. The first of many things that came out of this is based on affordability and it is as important as availability.
As much as I would love to E labor that point I think we talked enough about it today.
I would do the belaboring in the written portion of the comments.
What I would like to highlight, though is the importance of competition.
The city of Chicago believes that real competition is critical for considering an area to be well served and not just because competition will bring down prices, but what we know is that demographic factors factors as age, race and economic income will dictate who uses the internet.
So far providers have not been able

to market these services to racial and ethnic minorities so we believe it's important to create an equal system of small and large providers including culturally specific offerings to connect those on the pro verbial other size of the visual divide.

In anyone would like to comment on that, I would appreciate to hear.

MODERATOR: Competition.

MR. HAMMOND: I would say it's essential.

If large providers won't provide a service, then there are probably small providers who may or will or want to. We see that happen with broadcasting, where we have the advent of broadcast ownership female ownership, they have been the ones to provide the types of services to minorities and female communities that were not being provided for by majority providers.

And the same thing with small firms,

female and minority owned firms where cities over time have attempted to get the larger providers to provide service but they have not.

That's why we have municipal broadband in the first place.

MODERATOR: It's interesting, on Monday the first panel was on private sector eligibility.

The assistant secretary would have to find that it is in the public interest for private sector players, categories to be eligible and there was a fair bit of discussion on that panel that competition isn't in the public interest when you are dealing with unserved and underserved areas because there is not enough market to sustain.

And yet other panelists made the same point that if they already failed to provide service in those areas, let somebody else try.

So that comes up in the public

interest, that is a very specific public interest criteria.

MR. ARVIG: We have areas of densities low enough that they don't have wireless voice service.

So to say we want to have competition for internet, it varies less than three customers per mile in Minnesota, we are not in the middle of Montana or something.

MS. HOVIS: On the topic of competition also one of the great advantages of experimenting with Hiban width networks is when we have a lot of band width we have a lot of opportunity for leasing capacity to other providers or having multiple service providers competing over one network.

That is the most efficient way to competition, realistic many look what a hard time we are getting having one network to the country when we build that network we should have multiple providers all kinds of

innovators and business providers with new models and products that we can't imagine today who can compete over the network and bring us all the benefits that competition allows not only in who it serves and bringing down prices but also in innovating.

MODERATOR: Okay.

We need to move on with other speakers we have eight minutes left.

>> Kathleen dunham.

I have been in an underserved area for 20 years.

My real concern, although I appreciate New York state it's quite dynamic in protecting their people other parts of the country we have essentially one service provider for phone, DSL, whatever, and they have very close relationships to state government and other people don't have the same voice.

I would be very concerned if the state was definitely a part of the

approval of the process.
Frequently they don't know their own state and I think somebody said here that a lot of them don't have broadband offices.
That would be my first concern.
Competition is essential.
It is essential.
Right now I live in an urban area.
The rural area has better service because it's a small company that is providing it, a rural cable broadband group.
But I am on the edge of a large provider, and I don't even have good voice quality phone anymore.
I am now putting in VoIP over wireless to get good phone service.
This is pretty sad.
I'm sure I am not the only one in the country like this.
It is restricting our ability to do business and I'm sure a lot of other people are like that. I am very happy to hear a great deal of focus

on small business.
There are many people out in rural America doing small business.
They must have high band width.
>> My name is Steve koran we represent WISPA, several independent ISP's, educate OVRs with and a cellular company that provides services to native American and other areas out west.
And I have a couple of questions, to anybody on the panel.
I would appreciate your response.
We have been talking about affordability but I haven't heard anybody come up with a definition how you would incorporate affordability into a definition of unserved officer underserved what sort of requirements would there be for one found to be lacking the ability of broadband.
MODERATOR: We will only have time for one.
Let's take that one.

MS. KANE: The definition that is used in most of the universal service programs is 150% of poverty household income.

MODERATOR: I will give you your second question after we go around. Microphone number 3, if there is time.

>> 3 is having problems.

Can I move down to 4?

Oh, you can?

One quick comment and one quick question.

As to broadband, as to underserved areas the easy definition, easy way to find this is any place where the back haul costs to the ISP's or broadband providers costs more than 1 hundred dollars per meg transport it wouldn't be underserved if you were at an ISP levels of people who 3 to 5 MGS, 5 MGS we were paying 1 hundred dollars per MEG for transport and we have to sell it to the end consumer.

We do it at a five to one or ten to one at 5 MGs that is 50 dollars per month we would have to charge a consumer at an area that costs 1 hundred dollars per MEG I don't think it fits in the scope that they want affordable broadband brother to us under this scope.
Any place we have high cost of transport, higher than 1 hundred dollars per MEG with transport costs is by definition unservable.
Under this definition.
And the next one is for the cable guy.
Can I ask one question.
MODERATOR: Only if we have time to come around again.
>> My name is frank.
I am president of Ben and broadband in Wisconsin my advice to NTIA and RUS is to state to what the president really wants to achieve here, what is the net gain for America?

So let's keep the definition of underserved and vulnerable together. People with chronic disease are vulnerable if they don't get that connection between their doctors and their disease.

People of color are vulnerable in their communities because crime is upon them if we don't have the necessary surveillance to protect them and to educate the children.

Children on the farms and in rural communities are vulnerable because some of the urban and suburban communities have more connection than they do.

So if the program keeps a focus on that, we would meet the president's mandate.

Secondly very quickly is I think when they are looking at these proposals, look at the collaboration of people coming together on the proposals with ideas to solve all of these program problems, underserved

vulnerable and everything in between.
So band width will come along when you bring the proper services.
I don't think we ought to focus on the speed.
The speed will come when the proper services come behind it.
Thank you.
MODERATOR: 30 seconds.
>> Appreciate the opportunity to ask my follow-up question.
There is other pots of money here that NTIA and RUS have at their disposal.
And my thought is on the affordability question, maybe we should be accessing some of those pots of money for vouchers or rebates or requiring grant recipients to set aside CPD for people who can't be served with broadband or other forms of cable.
MODERATOR: Anyone have a 30 second response?

If it's not 30 seconds, we are done.

I would like to thank the panelists for a stimulating discussion.

We will be reconvening in 15 minutes at 2:45 for the roundtable on rural and unserved areas which effectively will continue in many respects, the discussion we just had.

Thank you.