



**Rural Communities Initiative
Webinar: Non-profit Technology
Resources for Rural TANF Communities
Transcription of Audio recording/Webinar
March 5, 2009**



Welcoming Remarks and Introduction of Speaker # 1 (James Butler, OFA)

Hello everyone and welcome to this Rural Communities Initiative Webinar on nonprofit use of technology to improve service delivery to Rural TANF programs. As mentioned in previous Webinars, based on the interests of your rural sites back in September, we have designed a series of technical assistance events that focus on the issues of rural technology, the second of which is today's Webinar on nonprofits and their connection to Rural TANF technology projects.

On today's Webinar we have three very knowledgeable speakers from different programs, discussing their experiences with the use of technology to improve options for TANF participants. As also mentioned earlier, after the presentations from both of our speakers, we will open the lines up for participants to ask questions.

Our first speaker for today is Mr. Timothy Tyndall, from the RAIN Distance Learning, Telemedicine and Rural Community Development Network. Timothy is the Director of the RAIN Network, which is a nonprofit educational service providing distance learning, telemedicine, and connectivity services to rural communities. RAIN has received support from the USDA Rural Utilities Service to serve 150 rural communities in Arizona, California, Colorado, and New Mexico. RAIN seeks to provide solutions to the specific technology challenges faced by rural populations and works to implement technology-based projects that bring together stakeholders to improve services. Timothy comes before you today with over 30 years of experience in Telecommunications, Rural Development, Distance Education, and Telemedicine program development. His work with Distance Education has received a Smithsonian Institution Technology Innovation Award.

Ladies and Gentlemen, Timothy Tyndall.

Presentation by Timothy Tyndall, RAIN Network

Well good day and thank you for the introduction. That was very nice. RAIN Network is one of the oldest nonprofit Internet-based networks in the U.S. We began in 1989-1991 working with the National Science Foundation to develop a Pacific Rim business and education network which was a strong prototype for beginning to bring the Internet out to a community side from the academic and research side. That has been very exciting to see it grow since then. I will walk through a series of slides with you here that give an overview of what we have done with telemedicine, with rural communities economic development and agricultural work and distance education and then I will be glad to take your questions.

First slide says of course we are using technology to re-weave the fabric of our traditional American communities and one of our big goals has been to go into rural communities and use technology to empower the community to become economically stronger and to be able to retain use and have a sense that rural communities have a dynamic future in America and are empowered through new technologies. Our Pacific Southwest Rural Technology Project between 1997 and today has reached 150 rural communities and in each of those communities we have set up a telemedicine network, a distance learning network and a community-side technology network that has been based on work



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with small farmers and small businesses to encourage ways to use the new technology to grow and build jobs and economy in a community.

RAIN was founded in 1978 as part of what is called Visible Light Foundation. We are in our thirty-first year of service working with community and education wellness. And I will go over just a little bit of this slide with you because I think it gives an important introduction to the type of network that can drive forward rural development. Since the beginning, Visible Light - our goal has been to find innovative ways to make education and health information available to our communities, and that has been a driving focus and that has helped shape the work we have done with USDA and with the Department of Education and with National Science Foundation.

As was said in the introduction, we have received a Smithsonian Innovation in Technology award and two AOL Community Technology awards for work in our rural communities. We have worked with over 35,000 K-12 students in public schools in our rural regions. We have brought a little over 150 rural schools online and set them up to begin using the Internet for curriculum support and school library development. We have set up 90 plus rural community health clinics now and have a new group going this year. That is very exciting. And have trained a little over 200 physicians and nurses in rural communities on the use of telemedicine diagnostic equipment and digital imaging equipment and video conferencing too so that rural community health clinics can begin having access to the same specialist resources that you find in urban centers.

We have had five USDA distance learning and telemedicine grants and a National Science Foundation grant. We have worked with UC Davis and the Department of Defense. In our development of GIS for rural community areas, we have worked through funding from the U.S. Geological Survey and have begun this year a new telemedicine project through Kaiser Permanente foundation grant funding that is allowing us to link a new group of 17 clinics together through a telemedicine network that should prove to be very interesting.

The four components that when I am working with new groups that are seeking to build sustainable rural technology skills and new rural health and economic education resources are the creation of a HUB server that is equipped to provide the resources for the number of communities you are going to be working with, a rural community technology skills training program that ensures the rural community are moving into having the knowledge ability and the skill levels to be able to make use of the new technology, combined with a telemedicine and education program and a rural e-commerce education and development program, which oftentimes involves ecotourism as well as e-commerce development of small farms. Those are the four core components.

The Rural Technology Project server has to be looked at if you are beginning a new project to allow for enough bandwidth and storage for the number of rural communities, individual schools, clinics, libraries that you're going to be serving. And you need to take into account the type of email services that the community is going to need and what level of technology skills training the community is going to need to be able to make efficient use of email as a new resource. Secure data imaging that allows for HIPAA compliance secure data and image transfer systems for your physicians to use is very important.



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We have also made very strong use of GIS and data-mapping as well as for use in schools and for use with our rural health clinics and for resource and crop and land management in our small farms. With our rural health clinics we've been able to use GIS to create data maps, resources that each of our rural communities so that oftentimes rural communities have one or two projects that can begin sharing resources because they become aware of specialists or other resources that are available for other clinics to use. Then our schools we've used GIS to really push forward science education. And overall the GIS data maps allow you to a level of project management and resource allocation if you're working with 10 to 30 or more rural communities that can really make a difference in how efficiently you lay out your project funding and develop a sustainability model and create a source of image data visualization that rural community residents will use to really become more involved in their program

The Telemedicine projects require, as I've said, a server that is secure, HIPA compliant, and with enough bandwidth to support telediagnosics. You want to make sure that you have planning for technology skills training for physicians and nurses. We do this constantly. On a monthly basis we hold workshops and training sessions for physicians and nurses to develop technology skills they need for telediagnostic equipment for general rural telemedicine applications and interviewing and a whole range of general computer skills. The rural community education and outreach is the other important component to be sure that the folks in your communities know how much you're adding to the rural clinic as far as resources and capabilities through the use of telemedicine.

For the 150 rural communities in our telemedicine network we connected them through a DS3 bandwidth line around T1 lines through every clinic where it was possible. Where it wasn't possible, we brought in satellite bandwidth to make sure we could get clinics involved in a collective telediagnostic project. Our rural clinics were set up with portable video phone units, digital stethoscopes, dermoscopes and digital exam cameras, and a small portable computer and video conferencing camera and that we then made available to each rural community to encourage the clinic to begin becoming familiar with telediagnosics and the use of digital imaging to bring in specialists. Many of our rural communities are 2, 3 or more hours away from an urban hospital and for them to be able to get care from specialists if there's a heart problem or a breathing problem can make a huge difference in a life and with the community realizing the value of such a project is just...

We also made use of a small bus that we bought that we put a solar unit on the roof for electricity and set up a satellite dish and a receiver system was in the bus and then put six computers on the bus that could go out to all of our rural communities as a mobile e-health and health and community education unit. What's made a tremendous difference, it's got a kit and we go to senior centers in many of the smaller communities and this is a point of access that oftentimes opens up doorways to a desire for more access and more involvement by the community in the whole process of introducing new technologies. And every time you get a rural zone set up with a bus like that it'll of course create you one or two more jobs working with the bus.



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Our rural distance learning is really effective has served over 35,000 K-12 students trained well over 900 teachers with technology literacy skills that in California we were able to give them credits through the state university for taking part in the technology literacy skills training and I've used that word a great deal – that technology literacy skills – that professionals in the rural community which includes your small farmers, your doctors and your teachers and librarians and your community government folks, that they have technology literacy skills and our have Internet distance learning program provide a curriculum and curriculum support for each school and we've developed a big focus on delivery and video as well as text-based materials for the schools.

That's our technology program that won the technology innovation award – we focused it so it had a lot of agricultural education as well as American history and science and literature and we also focused on home-school and after school programs that were relevant and geared towards the rural communities we were in. At least one school in each community was begun with the program. And in each case we gave the teachers a computer and a printer and curriculum materials to get them going. Camp Internet Knowledge has been working with the schools since the mid-1990s.

Our rural communities small farmer small business introduces classes for the community and the use of e-commerce and eco-tourism we get out and work with small farmers, small ranchers and within the rural communities we dig in and work with small business owners and craftspeople to develop partnerships to – in several instances we've been able to successfully develop regional branding for groups of products which we can then teach the community how to market through e-commerce and in the case of many of the small organic farms, develop ecotourism programs that substantially help out in a lot of areas and involve the small farmers and the small businessmen in the community in our technology project as a larger – in one further step in creating sustainable technology-focused growth within the rural zones that we work and so we've had tremendous luck with that. We've just finished up on Hawaii - that was actually very successful.

Our Economic Program works with small farms and rural small business for technology skills training. We coordinate in every instance with local government and small business associations to get a partnership between the local government and the small businesses. We introduce computers and connectivity to small farmers especially and get them working with it and we provide classes and the development of ecotourism, e-commerce, and partner shipping of multiple producers in a region where you've got five or ten products that can be branded together for the region and create a very marketable new package to help economic growth in that area.

Additionally, in our rural programs, we ensure that the local library receives at least two computers and a printer so they can set up a public Internet access station for folks in the region that can't necessarily afford for one reason or another to have a computer and bandwidth at home.

So, our community-level rural technology, which is the last thing I will address, is the most important. It has to do with working with people. We've talked about working with the doctors and clinics, working with the schools and with the students and parents, working with the small businesses and small farmers. Those are three of the core components that make up the framework of the rural community. But the other core component are the residents, the people there. And,



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what we do is go in, and focus on rural community technology skills training programs, community libraries and community centers, we work to create partnerships with local service organizations and we work to create a partnership with the local government and provide services through the technology for them and provide what is relevant for the region.

But essential and most important in the last ten or fifteen years has been the creation of community technology advisory councils and youth technology advisory councils in every one of our 150 rural sites. The Community Technology Advisory Councils, which are our CTACs, are made up of 12 or more community residents who take on the responsibility to teach their neighbors and to help ensure the sustainability of the project after the end of the grant program. They're the ones who, we provide a computer for the family, they then provide twice a month or weekly classes on the weekend at their house for neighbors to take part in, and begin expanding the scope of who we can get to for community technology education. The Technology Advisory Council was modeled on our work with the local master gardener organizations in earlier days and so we created master technology families, which became the Community Technology Advisory Councils, modeled on the idea of volunteers within the community who stepped forward to help teach their neighbors and in this case, it is to help teach technology in a rural area as a way to create more economic sustainability, to help re-weave the strengths, the fabric of the community and to bring the community into the 21st Century. Those families have been great, and working with them have been our Youth Technology Advisory Councils, one of those in each of our rural community, made up of 12 or more high school students. They oftentimes serve as the teachers to the adults as mentors to seniors and bridging new technology skills.

One other thing that we've used very strongly over the years has been our GIS data mapping. We've used it to map rural area resources, including land and water and electricity, which then local farmers can make use of it for planning. We've used it to map our health clinics and our schools and we've used it to help show small business and small farmers how to do economic modeling in a fairly simple way.

Creating sustainable rural projects. The Community Technology Advisory Councils, the health clinic the involvement of local schools and the involvement of small farms and small businesses is what weaves together the sustainable rural technology when you combine it with a team on your side of really dedicated system managers, educators and project coordinators who are able to bring the energy forward, to take this technology and weave that kind of powerful new tool together.

That's an overview of how we've brought together our communities. We've also done work in Costa Rica and Belize and helped start up telehealth and distance education programs in Ghana and are working on a new telemedicine project in Honduras. And so we've found that if you go to our Web site, if you study the power point a bit more, you see the shaping of a framework for sustainable rural projects that involve the full breadth of the community, from the use of the grandparents, from retired folks, to working farmers. So, I invite your questions and hope that some of my information has been valuable and you can always contact me by email timothy@rain.org and I'd be glad to give you more details on how we've made use of video both for our telemedicine and our education and what we've done as far as economic and health development. So thank you for your time.



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James Butler, OFA

Thank you very much Timothy. We are going to move along to our next speaker who will be Mr. Phillip Brown from Connected Nation, Inc. Phillip is the National Policy Director for Connected Nation, Inc. He is responsible for leading major activities associated with government relations and affairs activities. Connected Nation, Inc. is a national nonprofit established to increase and improve digital inclusion for diverse American regions and populations. It facilitates public-private partnerships to increase access to and use of broadband and related technologies that are enabled when communities and families have the opportunity and desire to connect, creating dramatic results that translate into economic and community development, better education, higher quality healthcare, more efficient public service, and improved quality of life. Currently, rural residents in Kentucky, Minnesota, Ohio, Tennessee, and West Virginia have benefited from the direct services provided by Connected Nation. Ladies and gentlemen, Phillip Brown.

Presentation by Phillip Brown, Connected Nation, Inc.

Thank you very much, good afternoon. I would like to thank everyone for tuning in and to the Office of Family Assistance and ICF for hosting this Webinar. I will go ahead and dive right in. First, can everyone hear me ok? (James Butler, Office of Family Assistance – yes, you are coming in loud and clear).

Just to go back real quickly over who we are and what we are about. Connected Nation was actually, it is a national nonprofit that started as a research team created by Governor Paul Patton in the Commonwealth of Kentucky in late 2001, early 2002. At the time we were known as the Center for Information Technology Enterprise, and our mission, at the beginning, was to study technology issues with the goal of enhancing the Commonwealth technology standing, in order to have a better educated workforce and the economy needed to employ that workforce. Very quickly we identified broadband as the key foundation to our mission and also a barrier to completing the mission.

We knew that broadband was not available to everyone, but we did not know the extent of our broadband coverage yet. We new Kentuckians were far behind the rest of the country in understanding broadband and using it, but we did not know what the barriers of broadband adoption were, or why those barriers existed. So we created the Connect Kentucky Initiative, which quickly became the work of the entire team.

As we performed our work and conducted ongoing research, we were able to gather data showing a positive impact, or what we call the metrics of success. So initially, we were approached by other states and ended up expanding our activities into eight states at this point and we reverse engineered a parent organization for our Kentucky Initiative and the other state programs which is known as Connected Nation.

So the comprehensive, state-wide initiatives we manage eventually became the model for a section of the Broadband Data Improvement Act, which was a Federal legislation that was passed and enacted last year and received funding in the recent stimulus bill for \$350 million dollars. That funding will be used for grants that help states create broadband initiatives and include the five key



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components on this slide. I want to explain this today, because the bulk of our work deals with technology at a foundational level and how it can help rural and low-income families.

So, in other words, a lot of what we do comes from four and it is necessary to create applications and technology initiatives that provide services for people in your states and communities. The first component is broadband base availability mapping, and I won't dwell on this in too much detail and if there are questions we can address them at the end, except to say we identify the need for broadband maps after we realized that there was an availability gap. Without a clear and granular picture where gaps exist you just cannot target resources effectively to close those gaps and ensure that the nation or a state has the equality of access. So we first map what type of broadband is available and where in a state and then we overlay other data like household density or existing infrastructure and other census data that can be cross referenced down to the county, street, and household levels. That allows us to work with broadband providers and local leaders to create a tailored technology solution for that locality.

So, the map you are looking at now is that latest map of Minnesota and provides a timely example of a map that is identifying broadband gaps to the household level using GIS technology. As an example of the usefulness of consumer adoption data at a county level, this is a map of Ohio that is juxtaposed as broadband availability and broadband adoption which we would just consider to be supply and demand in the broadband equation. So the purplish areas there represent the counties that have high broadband availability but lower broadband adoption rates. You will see on the key there the pink slides are lower than average broadband adoption. The blue slides are higher than average broadband availability for the state of Ohio.

We also provide, as one of the components, consulting between local leaders and providers. That consulting is at no cost to the participant. What it means is that we bring together local leaders of all the possible providers of broadband so we can help identify the best technology and close any coverage gap that exists using the maps that we create and helping guide that activity.

We will go a little out of order from the list. The next slide, a couple slides back, is local grassroots demand creation and the mapping helps address supply problems but this work addresses demand problems. The national broadband adoption rate today is 55 percent. In 2004, in Kentucky, it was 22 percent. Today Kentucky's adoption rate is 45 percent and trending up.

Broadband is a tool. Broadband erases distant and provides opportunities and it can open doors that were previously shut and like any tool, in order for it to be effective, it must be used. Households and businesses that don't use broadband can't benefit from it. We know of broadband as a key to the 21st century economy but half of our country doesn't use it. We want to change that by working with the different sectors in the community which you see on this slide.

At the county level, to identify the local barriers to adoption and to increase adoption rates at the local level. The key to adoption is local application. Like key health initiatives or distance learning or better e-government services that can improve the day-to-day quality of life. The key to higher adoption rates is not entertainment in our experience. High definition Youtube videos or



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downloading home movies off Bit-torrent simply are not going to convince a household or business that does not adopt broadband that it needs it. So working hand in hand with the local demand creation component is market based research and the identification of reasons for and barriers to adoption is critical to our understanding.

The question, “why don’t you subscribe to Broadband” is the cornerstone of Connected Nation’s county level surveys. This chart demonstrates the usefulness of this kind of data. Once local leaders understand why people in their community are not subscribing to Broadband you can then begin to develop targeted programs and policies to improve adoption levels.

I’m going to back-up real quick to point out some of the results here. This is Ohio’s data on barriers to adoption. The number one reason they “don’t need broadband or don’t understand the benefits.” The next most popular question was “broadband is too expensive” and then third most, don’t own a computer.” This next slide demonstrates that in Kentucky, the answer was slightly different. The number one question was “lack of a computer in the home.” It shows that if the barriers are different from state to state and county to county then the solution, it’s probably going to be different too.

Here is an example of some of our research into the reasons for broadband adoption. The number one answer shows the effectiveness of and the need for outreach and education about broadband. “I realized broadband was worth the money”, in other words means they have learned about something available through broadband that has value. The next most popular answer was “I learned broadband became available in my area” or “the cost of broadband became affordable or the price went down.” Fourth most popular answer was “I got a computer.” I’m going to come back to some more research in a few minutes, first I want to talk about the fourth component, actually this the last component, best component, of our initiative, which was developed as a direct result of our Kentucky research and the fact that the number one most common barrier to adoption was “a lack of a computer in the home.”

So we created a program that exists in all of our states, a more comprehensive initiative, to provide computers to at-risk populations. In Kentucky it is most often Title 1 students at the middle school level that we target. The schools will help us identify the children in accordance with the privacy laws and we make computer distribution working in close cooperation with the local school and the local community. In Tennessee, the state wanted us to focus on kids in the foster care system.

In Ohio it is a combination of the two. This program is supported by private sector donations. In Kentucky we have given out a little over 3,100 computers. In Tennessee, close to 1,300 laptops that will follow the child if they move from one foster home to another. In Ohio we’ve distributed close to 600 computers, some as recently as last week with an event with Governor Strickland. Also, we are approaching the 5,000 computer mark and those numbers will continue to climb. It’s a very popular and hot profile program which we’ve seen a lot of success out of. The picture is actually a photo from a recent Computers for Kids event in Rogersville, Tennessee where we presented families in that town with brand new Dell computers.



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To show you some of the dramatic results we've been able to measure from the Computers for Kids program. In counties where we have distributed computers to low-income recipients, and where the average household income is less than \$25,000 per year, after we have done distribution, those counties have seen higher than average increases in computer ownership (27 percent to 7 percent), higher than average increases in internet adoption (73 percent compared to 7 percent), and huge increases in broadband adoption in those counties (211 percent versus 42 percent average for the entire state). So in other words, the distributed computers have a leveraging power and people who didn't receive a computer will go out and actually get one on their own after they have learned about this program.

So why is this important? It's important because for every great application broadband is required. PDF Teacher Line, which is a program that allows teachers to continue their education at home, perhaps at 11 o'clock at night when their kids are in bed, that's when it fits their schedule most, their able to satisfy their ongoing education requirements online, requires broadband for that. There's Kentucky Educational Television Encyclomedia, which is digital content for the classroom, again broadband is necessary and required. There is a similar application for Maryland public television called ThinkWork. Again, it is a great application, but unless broadband is available you just can't use it.

We have some things we call value propositions or goals that we keep in mind. The first is that we want to improve the lives of the former disconnected. What I wanted to do at this point is to share three or four anecdotes. We have done some research we have done some data but I think the best way to understand the impact is to also hear about the people and exactly how they have been helped.

A few years ago, Computers for Kids made a delivery to a young lady named Erica Blevin who was a Johnson County, Kentucky middle school student. She was finding it more difficult by the day to keep up academically in a increasingly digital world and she was completing her eighth grade year. Her homework assignments and school projects from previous years were quickly being replaced by research driven – she had to do more and more research. Without a computer at home, her mom, Connie, was forced to search out alternative ways to find computer access. Connie said that it was tough on Erica, she was spending long hours at school at the public library and at her friend's houses, were competing for computers to complete her assignments and sometimes she wouldn't get home until very late. After they learned about the Computer for Kids program through their middle school, they were awarded an internet ready computer and they saw immediate benefits. Erica's mom said, "it removed all the barriers that were preventing my children from completing their assignments. They were able to do much needed research right from home and complete online tests on their local school Web site.

Besides helping her daughter academically, she said it has also opened up new doors. Now Erica wants to go to college and become a x-ray technician once she graduates. Broadband has allowed her to explore this direction and her college choices. She has also been able to identify several medical scholarships that they would have never known about without a computer. They have also



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said that the computer helps bring the family closer together. Because of home access the family does not have to spend extra time driving to public locations to find a computer.

Our second goal is to renew hope for previously withering communities that may have lost a major industry or employer. This slide is just a demonstration – to bring broadband to the disconnected we literally will try anything that’s a possible solution, including using a mule team to deploy fibers to the home in Johnson County, Kentucky. Sometimes that is what’s necessary to serve less accessible residents. We are very committed to the concept of ubiquitous broadband. We think it is not only possible but it’s imperative. Particularly for rural communities that have a lower than average access and adoption rates.

So, our third, what we call value proposition or goal, is to drive increases in the number of tech incentives, companies, and jobs. This is a picture of a mine. On the surface, an abandoned mine offers little value to local residents in the community but there was a cutting edge company that dug a little deeper and discovered an underground world full of promise for the residents of Kentucky. Global Data Corporation is building a high-tech storage facility in the old Shell Mountain Mine. They are going to advantage of the mine’s 40 foot plus thick walls and naturally cool temperatures to store reams of electronic data from around the world. The company tells us they will be one of the largest subterranean, high security data centers in the world. When they made this announcement back in 2006 that they were going to take over the 2.6 million square foot mine, they also announced they would eventually have over 1500 people to work at Shell Mountain, which is a significant number of jobs particularly in a community like this. The local project administrator said that the economic impact is going to hit the entire area. In his words, “I tell everyone it is going to be awesome! It’s going to be the shot in the arm we’ve needed for a long time.”

Because Laughton, Kentucky and Hardin County, Kentucky have been suffering since the 70’s when they first lost their brick plant which took 1,000 jobs out of the community and since then have suffered even more because local sewing factories have moved away as well. So, rather than forcing their local residents to have go somewhere, leave town for the work, they want to bring jobs back to town. It is projects like this that are making that possible.

Also, along the same vein of miners and mines, there has been a partnership in Kentucky between XL Mining, which is in eastern Kentucky and the University of Kentucky to connect coal miners, that is, to give coal miners better access to health care. Coal mining, coal provides 50 percent of the electricity in the United States and there is a significant national debate about that today, but in Kentucky, mining has long been a source of jobs, but mining is frankly very physically difficult and potentially dangerous work. So, the University of Kentucky provided funding for a mobile health clinic and they put the networks in place to launch convenient quality health care to miners at their work site. These mobile health clinics are manned by a nurse practitioner. They use mobile vans equipped with EKG monitors, defibrillators, vaccines, and medicines and thanks to broadband technology, also video conferencing capacity that allows the unit’s nurse practitioners to communicate with doctors and specialists at the University of Kentucky as is needed.



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Again, it is a great application and it is one that is bringing better quality health care to a part of Appalachia that has long been far behind in terms of health care quality they receive and it removes the need for these miners to put in long hours and are not capable, don't have the ability to drive to Lexington, Kentucky, which is in most cases, the closest metropolitan area, to get the health care that they need.

That ties into our last value proposition, which is enabling technology for lifetime learning and improved health care and higher quality of life. My last anecdote, and I will make this quick, is about a woman named Joyce Wilson. This is in Jacksontown, Kentucky, again, a very rural part of the state. She is hoping to take advantage of a new low interest loan program to help Jacksontown families afford new programs and broadband services. Project CAFE, and that stands for Computers Are For Everyone, grew out of our local grassroots demand creation work at the county level that I talked about a few slides ago, the e-community leadership team meeting. Since we organized these leadership teams in every Kentucky county, in Jackson county, they discovered they had an unique challenge. They had 100 percent broadband coverage, so everyone could get broadband, but only a third of the households had any type of internet service – so 33 percent broadband adoption rate, or internet adoption rate, broadband adoption rate was 22 percent.

Since the cost of a computer internet service seemed to be a major deterrent, the People's Rural Telephone Corporative there in Jackson decided they wanted to help their community take advantage of broadband so they pitched in to create this low-interest loan program. In fact, People's Rural Telephone Corporative donated \$75,000 dollars. Through the program families can get a premium computer, Microsoft Office software, anti-virus program, and 8 months of discounted DSL service, all for about \$1,100 dollars. Any family with a child in public school is eligible and they later hope to expand the program to all students in home, private, and religious schools. The technology coordinator for the Jackson county school system says that the program will create new opportunities for children and their families. She points out also that many people in Jackson county can get to jobs to Lexington, Kentucky or Bureo. The unemployment rate shot up when an electronic plant shut down, taking 1,700 jobs away. However, they think that with complete broadband coverage, and a rapidly expanding adoption rate, they are going to be able to create the sort of atmosphere that will attract new employers.

So, done with anecdotes, but I want to go back to some more research. It is research that shows why broadband and the use of technology and the creation of services are so important. What this slide is showing you is how adoption rate and computer ownership are higher than average in homes with children, but lower than average in low-income homes with children. This research is compiled from our survey research in Ohio, Tennessee, and Kentucky. You see that the average for computer ownership is 74 percent of the population, broadband adoption is 60 percent, 87 percent computer ownership in your typical household, but only 64 percent computer ownership in low-income homes with a 32 percent broadband adoption rate in low-income homes. The next slide shows that adoption rates and computer ownership by income and unfortunately what we see is that low-income homes have a dramatically lower both computer ownership rates and broadband adoption rates and those numbers climb as household income levels climb. Also, adoption rates are lower in other disadvantaged or at-risk populations. In addition to just looking at low-income, we look at



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seniors, the disabled population, households that have no college education, African-Americans, all of these disadvantaged populations have lower than average broadband adoption rates. Also, there is national research by the Pew Foundation, Pew Internet Life Project, that shows that adoption rates for low-income individuals are also lower than average. The people in America who have almost the most to gain from broadband could be the ones who have less access to it and it's a system we strongly feel we should change.

This next slide is the barriers to adoption in low-income homes. Lack of a computer is an answer that stands out in low-income homes, but ironically, low-income homes also indicate a higher awareness of the need for a computer on average. Which I always thought was an interesting data point. In the low-income households with children, similar results but they are even more aware of the need for a computer and cost is clearly a factor to computer ownership. Fifty-five percent of respondents said that it is a good incentive to have a computer.

Now some positive news, some positive numbers. What we do works, we've been able to measure that. Technology and higher broadband rates can create jobs. This slide is showing, since 2004 when Connections, Inc. began, Kentucky has consistently outpaced the rest of the country, or the average, the nation's average, in IT tech job creation. For the first two years, 2005, 2006, we were growing IT jobs at a rate of 1.5 percent, last year, in 2007, that number jumped to 6.3 percent, and in 2008 we saw a slow down in the growth rate that I think corresponds to the nation's economy as well. Broadband is not the magic bullet but it is certainly key to the economy. We have also been able to measure that the IT sector jobs before and after the inception of our project. Before Connected Kentucky began its work, Kentucky was losing IT jobs at a rate of 12.3 percent and then, to re-state that data point, after we began our work we began growing our IT job sector in the state while the country overall was losing. We've also seen growth in three other job sectors: the finance sector; the scientific sector; and the technical service sector since 2004. So that's another positive trend. These aren't jobs that are created directly from the investment in broadband networks but they are jobs that certainly have a connection to technology.

Really, this slide to me is the best validation because it shows the happiness that we see when kids get a computer. On the left is a copy of one thank you note out of many we got from Walnut Hill Elementary School in Casey County, Kentucky. On the right there are several quotes from some of the other thank you notes. My favorite one is, "there is not a way I can thank you enough but until I can figure a way I will just tell you thanks. The first one is, "this means more to me than you will ever know, not only will it help me but it will also help my mom and my four other brothers and sisters." So, there is truly an impact to this work we are doing to help low-income students and their families.

Finally, I just want to give you an overview of the broadband stimulus funding that was contained in the American Recovery and Reinvestment Act. It's a total of \$7.2 billion dollars for broadband activity - \$3.9 billion is going to come through NCI which is part of the Department of Commerce for infrastructure grants. That is going to be coupled with \$2.5 billion at the USDA's distance learning and telemedicine broadband grant program, also for infrastructure. But then there is \$250 million dollars in competitive grants for programs that will create sustainable adoption. Two-



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hundred million to strengthen public computing center capacity and the intent there is to put more computers in libraries, community colleges, community centers – places where low-income households who can't afford a computer can go and get access. And then the \$300 million dollars that I mentioned earlier that is going to fund the state broadband data and development program which will create more initiatives like Connect Kentucky, Connecticut Ohio, Connect Tennessee, and Connect Minnesota and also ensure that we have a national broadband inventory map so we can measure the United States as a whole.

With that I'm finished. I hope I didn't take too long. On behalf of Connected Inc., I want to thank the Office of Family Assistance for the chance to present to you guys and thank you for attending. That's it.

James Butler, OFA

Thank you very much Phillip. Does either of you, Phillip or Timothy, have any additional comments to add before we open the floor up for questions? (Timothy Tyndall: No, I will wait for questions that anyone has). Ok, Charlene if you would please, you can open the lines up for questions.

Question and Answer Session

(Stephanie Barr, ICF International) We actually do have two questions from Live Meeting.

First Question: (For Timothy Tyndall) What specific types of funding streams or resources do you use to fund the Internet class or mobile computer lab?

- The Internet bus has been funded through private foundation funding, part of it came from Albertson's Corporation and portions of funding through a USDA grant went into it. We developed along the use of it some smaller county-wide foundation grants are going to be applicable in California. That's all been Federal, State, or private foundation. The services remain free for all participants.

(Stephanie Barr, ICF International) Thank you. We also have a question for Phillip.

Second Question: How is Connected Nation funded?

- Great. That is a great question. When we began in Kentucky, that state of Kentucky actually provided the bulk of the funding. We've always committed to raising 20 percent of the total program cost from the private sector. Because of the public-private partnership you really need have to have buy-in from both sectors to make it a true public-private partnership. Although funding is not the only critical element there. You actually do need to have a partnership and not have one dominate the other. Connected Tennessee and Ohio also allocated state funding for the program. We have been the recipients of some Federal funds, some grant monies through both USDA and the Appalachia Regional Commission (ARC) to work in ARC counties. One thing we discovered, particularly over the last two to three years as state budgets began to feel the pinch of declining tax revenue, is that there was this enormous amount of interest from these other states in the nation. I believe we've had some



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level of discussion with all 50 states. At this point various levels of interest and commitment, but definitely there is a majority of states who are very interested in this sort of initiative but they simply don't have the funding, particularly at this point. State governments have been faced with questions like "should we lay off teachers?" It is hard for them to justify any programs. That's why the Broadband Data Improvement Act passage and its funding in the stimulus routes is critical to this. The grant program originally started out as a stand alone bill introduced by Dick Durbin and its development was a response to a question we got which is, "if the Federal government wanted to replicate Connect Kentucky's success nationwide, what would the bill look like?" We suggested it is good to have this sort of activity taking place on a state-by-state basis and if the Federal government was able to just assist with the cost that would be one the simplest way to actually accomplish the creation of initiatives in all 50 states. That's the reason for that level of funding. That Federal funding does carry a 20 percent match as well, so the same principle as there. It has been a combination of foundation, states, little bit of Federal, and we anticipate that what is going to happen here in the future, a large part of it is really going to be funded by the Federal government.

(Stephanie Barr, ICF International) Great. Thank you both very much. Now I will turn it back over to James Butler.

James Butler, OFA

Thank you again everyone who joined us today. Thank you to Timothy and Phillip sharing your knowledge and expertise regarding rural technology initiatives that serve TANF participants. As usual, the power point presentations and an audio recording from today's Webinar will made available for everyone within the next coming weeks. Also, feel free to e-mail anyone on the Rural Communities Initiative team if you have any further questions. So on behalf of the Office of Family Assistance and the entire Rural Communities team, we thank you all very much for participating and joining us today and have a great day!