

NWX-DOC-NTIA-OTIA

Moderator: Emy Tseng
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1:00 pm CT

Coordinator: Welcome and thank you for standing by.

All participants will be able to listen only for the duration of today's conference.

If you should need assistance press Star then 0 and a support person will assist you.

Today's conference is being recorded. If you have any objections you may disconnect at this time.

I would now like to turn the call over to your host for today Ms. Emy Tseng. Ma'am you may begin.

Emy Tseng: Hello. Thank you all for joining us today. Welcome to the Broadband USA Monthly Webinar Series.

For today our webinar is going to be about strategies and programs to increase broadband adoption and to build inclusion in rural areas.

I'm Emy Tseng, a Senior Broadband Program Specialist here at NTIA.

And I'm joined by my colleague Karen Hanson who will be helping with the Q&A part of this session. She manages strategic partnerships particularly with federal agencies and philanthropies.

I'm really excited to welcome three distinct experts and practitioners who have deep experience in this field of rural digital inclusion. We have Dr. Brian Whitacre who has been a professor and extension economist in the Department of Agricultural Economics at Oklahoma State University since 2006. His research includes telecommunications and technology policies, economic development, rural health and broadband access and effective use. He currently teaches courses in rural economic development and agricultural economics.

We also have Dr. Bharat Mehra who is an associate professor in the School of Information Sciences at the University of Tennessee. His research examines diversity and intercultural communications, social justice in library and information science and the use of information and communication technologies to empower minority and underserved populations. Dr. Mehra has recently been awarded multiple grants from the Institute of Museum and Library Services to help train rural librarians in the Appalachian Region as well as develop collaborative partnerships between rural libraries and small businesses.

And our third presenter is Katie Hill who has served as the Library Director at Coffeyville Public Library since fall of 2013. She is an active member of the

Kansas Library Association and serves as Vice President on the Southeast Kansas Regional Library System Executive Board. Katie earned her Masters of Library Science from Emporia State University in 2009.

First off I have some housekeeping. As the Operator explained, the phone is in listen only mode. If you have questions then you should submit those in the question section or—the chat section of the webinar platform. We will address those questions at the end— after the speakers have presented.

Also the presentation, a transcript and a recording of the webinar will be available on our web site. It usually takes a week to post.

All right, so just a little bit about NTIA, so NTIA is an executive agency that advises the White House on telecommunications and IT policy issues including broadband spectrum, privacy and Internet governance.

So Broadband USA Program which we are part of supports communities in their work to expand broadband access, broadband adoption and digital skills to ensure that all residents have the opportunities that come with the use of broadband.

We serve as strategic advisors to a number of communities around the country to expand broadband access as well as Digital Inclusion Programs. We offer direct technical assistance to communities advising them on planning, implementation and sustainability. I personally have been working with a number of communities on their digital inclusion plans. There's a lot of exciting things happening in this field right now.

We also present webinars, events and workshops and publish guides and toolkits to help the field in the development of their broadband strategies.

In the next couple months we have a few more coming out including one on partnerships, implementation and sustainability. We also have upcoming webinars on these topics.

So I would like to go ahead and let Brian begin.

Brian Whitacre: Well thanks Emy and NTIA for having me here today. Again my name is Brian Whitacre. I'm a professor with Oklahoma State University. I'm really excited to see a good turnout by all of you that are here today. It kind of gives me hope as an economist that there's a lot of interest in doing more with what broadband can do for rural economies.

And I think a lot of you guys are here for kind of some of the on the ground efforts that we've been talking about. And I know Bharat and Katie are going to get into that as we move forward here.

But I'm also – I'm actually going to lead off with a little bit of the research that I've done in this field.

So if we can go to the next slide, I'm going to kind of start off and talk about some papers that I've written that focus explicitly on what broadband can do for rural areas. There's been a lot of research out there on, you know, broadband causes growth generally.

But most of my work focuses on what it means for rural areas. So I'm going to go through these kind of one-by-one. There are three studies here in different journals and different statistical techniques and all that kind of stuff. So I'll walk through these briefly.

And then I'll talk – turn more to kind of what the on the ground extension oriented techniques that I've been doing.

So let's go to the first one here. This first paper is called Broadband's Contribution to Economic Growth in Rural Areas: Moving towards a Causal Relationship.

So go ahead and go to the next slide please.

And what we did here was we used data from before broadband was even available so around 2000 when, you know, only about 2% of households had broadband.

And we basically said okay let's look at similar nonmetropolitan counties at that time. And so we had these kind of groups of counties that were very similar in terms of population, age, the industries they worked in, how fast they grew during the 90s and things like that.

Then we said okay some of these counties did a really good job adopting broadband over the next ten year period and some of them didn't. And let's see what kind of outcomes were associated with that.

And what we found was in this paper that the ones that had – did a really good job of adopting broadband, again these are all rural or non-metro counties so they had a really high broadband adoption rates. They did have measurably higher growth in both income, that's on the left hand side of your screen there, and they had measurably lower rates of unemployment growth.

So of course this during the Great Recession so everyone saw increases in unemployment but those rural counties that had high levels of broadband

adoption saw slower unemployment growth. So these were both positive results for what broadband adoption meant in these counties.

And then the next slide.

We also looked rural counties that did not do a good job of adopting broadband so they had very low adoption rates less than 40%. And again we're comparing these with otherwise similar counties as of 2000 so we can add similar ratio composition, income levels, etcetera, as of 2000. We found that those firms that had low broadband adoption actually lost more firms. Again on the left hand side there and lost more jobs than the otherwise similar counties.

So we make the case that is – actually is a causal relationship and there is some meaningful impacts that come out of whether or not rural communities adopt broadband.

So that's the first study I wanted to highlight.

Well go onto the next slide please. And talk about this next one. This is a different paper in the Annals of Regional Science. And we looked at a shorter time period basically just between 2008 and 2011.

And again we focused on changing adoption rates for nonmetropolitan counties. So we looked at the community that either increased their adoption rates over this time, some decreased but most of them were increasing over this time.

And what we saw were the non-metro counties that increased them over just a relatively short period, like this three year period. Saw positive changes in

income and employment. So again it's a pretty short period of time. But it's a nice finding that we can document these positive economic impacts.

And one thing I want to highlight about this study is we did not see these changes when we looked at just simply availability. So of course both availability and adoption were increasing over this timeframe but our results basically say hey we really need to stress this adoption piece. It's not enough just to push infrastructure out to these areas.

And last slide, or next slide.

The next study we had was more focused on civic engagement. So hopefully we'll get to the next one here. Yes.

And this is a more recent paper. And what we did was we looked at the non-metro portions of every state. And we had data on how, again their broadband adoption rates. And then we had some interesting civic engagement measures. So things like how likely they were to contact a local official to, you know, participate in a political discussion. To join local sports organization.

And interesting thing was in these rural areas we found there's a very positive relationship for the most part and it's held even after we control for things education and income levels in these areas.

So although that was a pretty interesting finding, we did find also there were some negative relationships. One of interest is that as your broadband adoption rates gets higher we actually see a decrease in the likelihood of talking with neighbors so that's kind of an interesting one that we highlight in the paper as well.

But for the most part we did see this increase in civic engagement for rural communities when they do adopt more broadband. That kind of fits in the general trend of what we do, what we found.

And so the next slide.

One more recent paper makes the point that not everything about rural broadband is great. And what we did in this particular paper is there's this hypothesis that broadband is going to do all these great things and attract entrepreneurs and creative class employees to rural areas.

And so that was our hypothesis was that if we found, you know, areas with really good broadband and they did a good job adopting broadband that was going to lead to more entrepreneurs and more creative class employees. We did not find that. In fact we found the opposite. We found that if you had high levels of adoption in these rural areas it actually reduced your entrepreneurs and your creative class employees.

And we can hypothesize maybe that's because we're actually reducing some, what we call necessity entrepreneurs in rural areas so the people who, you know, don't really have any other options and kind of open a second hand store as their way of making a living. So maybe this – maybe broadband can kind of encourage them to leave that employment and go somewhere else.

Or we also make the argument that it could actually encourage outmigration from nonmetropolitan areas to – of people who find jobs in more metropolitan areas. So that's some future research that we want to do.

But I just wanted to make the point that not everything we found about rural broadband is glowingly positive.

So please go ahead to the next slide.

So that's all the research I wanted to focus on. Actually a bigger part of my job is what we call extension or outreach efforts.

And so, you know, we're obviously - a lot of you guys are interested in how we get rural communities to adopt broadband and to use broadband. And a big part of what I've done here at Oklahoma State is an e-Commerce Program for small business kind of mom and pop organizations that know the Internet is important but don't know what steps they want to take.

And so I'll talk about some of the hands on workshops that we do. They're typically about three hours. They are very hands on. We hold them in computer labs. We usually have just about 5 to 10 up to 15 people in each class so that we can walk around and help them with specific aspects of it.

We do partner with a local economic development organization who has these contacts and they know these people and they get us an audience so we don't have to do that ourselves.

And it's been very well run and we've gotten some really nice results.

So go to the next slide.

And you can see the workshops that we offer. These are the different ones that we offer. The most popular ones you can see there are on just planning

out a small business web site. And then a really popular one for us has been search engine optimization.

But you can see the other ones we offer we go over how to install PayPal on a web site. If you want to just run an online storefront, we go over how to – the basics of that. Again these are all three hours hands on. And, you know, we walk around and make sure people are actually learning the techniques that we try to teach them.

So next slide please.

Here's some evaluation that we do for these workshops. You can see there on the left the end of instruction questionnaire that we ask. And of course we're interested in, you know, if they used any of the information. If they thought it was useful. And you can kind of see over the years we had a really strong period of growth in the early 2000s when we were doing these quite often.

And we've learned what people find useful. You can see there the percent of very useful has been increasing over time. And we are trying to do some documentation about how the businesses turn this into actual measurable impacts. Things like increased audience, increased profits. Things like that.

So just a little bit of a longer term problem, it's always of issue for extension. But that's something we are looking into. And again these are – you know this is something we've done at OSU. I know a couple of other Land-Grant Universities have done it.

And I'm certainly willing to share this – these workshops and this information with any of you guys out there who might be interested in setting up a similar program.

And so next slide.

Just a couple of – this is my last slide so just a couple of other things that I think you all might be interested in and that I'm trying to do here in Oklahoma.

I know Katie is going to be talking a lot more about this at the end of this webinar.

But we are doing some – we're trying to run some Library Hotspot Loan Programs here with our rural libraries.

And so I'm going to pilot a program here in Oklahoma with four specific rural libraries and you can see there from the population of the places, they're, you know, pretty small, about 2000 people in most cases. Some of them are higher poverty. And we're basically loaning out these devices to the constituents in these areas.

And Katie will give you a lot more information about that. Kansas has had a really good program up and running for a couple years. And it's a unique way to get kind of economically disadvantaged households to use the Internet and to see the benefits of it.

And then the last program I want to talk about is one that's under development right now. And that is I want to actually go out and hold a program specifically for disadvantaged households so maybe it's low income. Maybe it's, you know, English as a second language. Maybe it's elderly.

And we basically we want to go out and just demonstrate the uses of the various technology. For some of these people, you know, opening or turning on a smartphone is kind of intimidating. So we want to demonstrate how you do it using tablets.

I've got a nice little fact sheet on some low cost options for broadband Internet access in the state and it maps out some low cost providers and talks about lifeline and all that kind of stuff too.

And the idea is we're going to partner with local businesses and nonprofits who can kind of demonstrate some of the things that you can take advantage of online for these households.

And again I'm envisioning these as just kind of very short, you know, maybe one hour maximum interaction with these households and just trying to demonstrate the benefits of broadband.

And so that's it for my part. I'll turn it back to over to Emy and Bharat and Katie and let them take over from here.

Emy Tseng: Thank you so much Brian. All right, we'll turn it over to Bharat then.

Bharat Mehra: Good afternoon. Thanks to Broadband USA and NTIA for this fantastic opportunity to share with you snapshots of my experiences in technology training, local capacity building, economic development and empowerment in rural libraries in the Southern and Central Appalachian Regions.

Having been an educator and activist at the University of Tennessee since 2005 and involved in various externally supported grant projects. Two underlying themes related to my work have involved action research. That is

how can teaching, research and service impact communities and make a difference in the life of people by tangible products and solutions to solve these problems? And the second theme is community engagement. Has been quite applicable that enterprises, groups, individuals, institutions working together to identify and solve problems involving cultivation of valuable relationships and sustained stakeholder engagements.

Next please.

Of course you know that it's more than broadband connectivity. And it's focusing on use.

So the focus here, agenda here is to convince policymakers and Federal/State Economic Programs to partner with rural libraries, to boost effective broadband adoption, implementation and use.

You will find not a focus on one measure but with select examples that will challenge your notions and stereotypes of librarians to convince you of their value and how with adequate training and support in our action research activities we are helping them to extend their roles by IT and rural management as well as economic development resources and skill development while involvement in multiple jobs.

Next slide please.

So here's some information about the context. People living in the Appalachian Region including its rural areas have traditionally faced challenging economic, social and cultural conditions.

For example a recent Appalachian Regional Commission Study based on 2017 estimates found that of the 420 designated Appalachian Counties, 84 counties were economically distressed and another 114 counties were economically at risk. The region's labor force participation is low at 59.5% compared with 54.2% nationally.

According to the U.S. Census Bureau 2007-2011 American Community Survey, two-thirds of Appalachian Counties had populations of fewer than 50,000 people and 125 counties had fewer than 20,000 residents.

According to the Institute of Museum and Library Services data file 352 of the 420 Appalachian Counties are considered rural, 42% of the residents in the Appalachian Region are living in rural areas compared to 20% of the national population.

Next slide please. Thank you.

Focusing on Tennessee in 2010, 66 of Tennessee's counties were rural with a population of less than 50,000 people. And Tennessee had 52 Appalachian Counties out of its 95 counties. And these counties represent 43.9% of the state's total population. Of these 10 counties are economically distressed, 23 counties are at risk, 37 counties containing 190 economically distressed areas.

The Tennessee State Libraries and archives consist of nine multi-county regions serving 211 small and medium sized public libraries throughout Tennessee. These are not counting the metropolitan libraries.

Tennessee's rural libraries face challenges to provide small businesses with access to current credible information, critically used information, provide

benefits of technology in soft land area and collaborate with community agencies to drive better systems and services for all small businesses.

So I think small businesses get started and flourish in an ongoing – is an ongoing aspect of community resilience that combats the ever present crisis of poverty in many local areas.

Results from the 2014 Digital Inclusion Survey show 73.1% of libraries do provide skill instruction that are essential to applying for jobs; 68.3% facilitate efforts to access and use employment databases. Only 31.9% of rural libraries, public libraries provide assistance in access and use of online business information resources compared to 67 of city location libraries. Only 22.8% of rural libraries conduct activities to support small business development.

Next slide, rural libraries have a strong potential role to play in economic development and community growth and sustainable economic viability of the Appalachian Region. This formed assumption underlying two grant proposals that were funded by the Institute of Museum and Library Services. The first one October, 2012 to September, 2016, the second is from October, 2009 to September, 2030.

And of course the idea here was information technology, rural library and Master Scholarship Program. And we have some information about those on the next slide.

So the goal of these two programs was to train 16 and 11 paraprofessionals respectively working in the Southern and Central Appalachian Region to complete their master's degree part time (in a) distance in our UTSI Program

to improve their IT management skills essentially to serve the unique needs of the region's rural communities.

These students continue to work full time in the rural libraries by creating tangible product while they were taking our courses. You're able to see them and hear them through Voice Over Internet Protocols. And they took courses which were led to producing IT outcomes and some of the courses are listed there, technology infrastructure, planning and analysis, web design and development, database design and implementation.

And really be allowed - had been – we required them to focus on rural library management outcomes as well. And so you can see the examples of the courses that are listed there.

Next slide, so here are a few examples of the kinds of work that students did.

Rebecca Tedesco) developed dual web technologies and web mapping software to analyze user data and improving facilities at the Cleveland State Community College in Cleveland, Tennessee. She also provided computer service evaluation by creating account sourcing web mapping application to include user generated content.

Also we had Anjanae Brueland who conducted a spyware system wide technology inventory for the Sevier County Public Library System in Tennessee. She revamped a site, developed a lending program for e-Readers, iPads and Notepads facilitated in the circulation of HD Kindle Fire devices and other access.

Next slide, Catherine Tyler improved community technology skills to provide more effective computer services by hardware, software, troubleshooting at the Rockbridge Regional Library in Roshen, Virginia.

Also Ryan Congdon created a YouTube web video introducing social media and its uses for rural environments. He also developed a web site that instructed on the use of e-Reader at the Rockbridge Regional Library in Lexington, Virginia.

Next slide, so a few insights here, with that information, creation, organization, management and dissemination skills applied to IT use the embedded library plays an important role in technology adoption to further broadband use in rural communities.

The effort can be instituted in federal, state level efforts of quality formulation and decision making to further effective operationalization and implementation in future initiatives.

Rural librarians have not been fast in asset mobilization to engaged with small businesses, workforce, entrepreneurs and Chambers of Commerce representatives as well as participate in government policy negotiating training programs to empower communities and further economic development in rural communities.

Next slide, so in this project which is entitled The Role of Rural Public Libraries and Small Business Technology Development in the Appalachian Region, a case study of Tennessee from October, 2014 to September, 2016, this has been serving as a pilot case study, assessment test base to expand strategies to the entire Appalachian Region. And it involves quantitative and qualitative data collection to document experiences with – from small

businesses and rural public libraries to develop a tangible that was usable by the user community in rural area.

Next slide, the three aspects of the skills underlying this project, first of all practical concern in the slow – to the slow economic development in Tennessee, we were able to provide a potentially practical solution.

The second aspect, a tangible product which was based on the gap analysis of feedback provided by the two stakeholder groups we developed a blueprint. It's a toolkit design for feedback from key partners in the region to further a strategic action plan. And the design of this toolkit can be found in additional resources which will be made available through the slides – through the web site.

And of course the main aspect of making this a successful effort was developing local partnerships and collaborations.

And it helped us build sites between the small business community and the rural public librarians.

Next slide, we also got some additional funding internally from the University of Tennessee's Community Engagement Initiative Grant where we orchestrated the Small Business Community Information Exchange in November, 2016 at the Blount County Public Library hosting 20 representatives including government officials, bankers. People from the Mayor's office, Chamber of Commerce, Economic Council members and others who discussed implementation issues of this toolkit blueprint design.

Its work such as this to replicate think tanks involving local, regional and national policymakers is essential to identify partnerships and develop

financing teams to be able to support small businesses and establish some relationship and partnerships with rural public libraries.

This effort was successful only because the Blount County Public Library was a part of the Blount County Partnership that provides opportunities for small businesses, corporations, manufacturing technology commercialization and other aspects.

The BCPL has provided a wide variety of programming for adults in workforce development training and partners with the local Department of Labor, career coach and small businesses in the region.

Next slide, some insights here, rural libraries can assist small businesses by providing digital resources such as the (PLSB) toolkit in ways that rural small businesses' needs. Currently rural libraries do not have adequate staff and finances to meet the small business expectations providing static services in an ad hoc manner.

Some agencies can provide financial assistance to rural libraries to develop this kind of resources such as a toolkit that will provide a comprehensive framework for the services. And effectively use broadband to deliver a toolkit that will be useful to small businesses.

And in specific areas some of the funding support can help in resource development. It makes common sense for government agencies to allocate investment and expand digital infrastructures in extensively distributed rural libraries and better utilize broadband and creating tool development for economic growth.

Also with that development, the grants and funding support for IT training programs for rural libraries, government agencies can help them serve their communities effectively.

And third, provide subsidiaries such as creative solutions. For example reduced rates for service providers, for Hotspot Programs are needed in this regard.

And here's an example. At the Blount County Public Library System we have \$35 per device and 50 hotspot devices that are being offered through Verizon and AT&T. Of course all libraries cannot afford this kind of expenditure there. So a lot – some kind of subsidiary support is needed to extend this kind of purchase.

So that's the end of my presentation today. And I look forward to questions later on by the end of the talk – by end of this session. Thank you.

Emy Tseng: Great. Thank you so much for that Bharat. And this provides a great context for Katie's presentation where she'll be talking specifically what they've been doing in Coffeyville.

Katie Hill: Hi. Yes. Okay, so if you want to go ahead and go to the next slide, my name is Katie. And I work at Coffeyville Public Library. Coffeyville, Kansas is a small town in Southeast Kansas as you can see from the map there at the top right. We're located in Montgomery County.

And as of the 2010 Census we had just over 10,000 people but more accurately I would say we're just under 10,000 in terms of population.

Our claim to fame happened back in the late 1800s where the Dalton Gang actually tried to rob two banks in town at the same time. And they were gunned down. So we have a big festival every year about the Dalton Gang.

A little economic background about our community, Montgomery County is ranked very poorly in terms of economic health across the state. Both for the economics as well as for just physical health and wellbeing of our communities Montgomery County is ranked very low in that regard and it's definitely seen with people coming into the library.

Go ahead and go to the next slide please.

So just to tell you a little bit about our library, we are a standard public library. We have our regular services that any library would. So we do the regular lending of books and audio books. We have copying and faxing services. We also offer the programming that you would see in a regular library. So you have your computer how to's. We offer gardening classes, resume writing and then your summer reading programs for the kids.

We do some senior outreach. So we will actually take books to the nursing homes here in town so that – to help those that are homebound and unable to come into the physical library.

And you can kind of see some of those pictures on the right hand side of those services and programs that we offer in the community.

Also we are part of a 43 member library consortium. And this is very beneficial. Southeast Kansas is made up of a lot of small towns and we being a 10,000 population we are actually one of the larger towns in this region.

So being part of a consortium helps us. It allows us to have a much larger collection and our patrons have access to that larger collection.

We also have 19 public access computers that patrons can use to check email, apply for unemployment, apply for jobs, also for students if they're doing research.

And then we also have our free Wi-Fi. And the Wi-Fi is turned on all, you know 24 hours a day. We very frequently will have people sitting outside of our library in their car picking up our Wi-Fi signal after hours.

And down below you can see some of the library usage, the stats that we have. These are all from 2016. So you can kind of see the type of – the amount of volume and the number of visitors that we have coming into our library on a yearly basis.

The very bottom number there, that is the number of mobile hotspots that we checked out in 2016. And I'm going to go into more detail about our Hotspot Program.

Next slide please.

Okay, so the way that our program got started was New York Public Library had a grant through the Knight Foundation where they wanted to see how a Hotspot Lending Program would go over in a rural state.

So they had sent out some feelers, asked for people to participate. And the State Librarian of Kansas Jo Budler said yes, Kansas is onboard. What do we have to do?

So at that point she then contacted all the librarians in Kansas and said is anybody interested in joining this pilot project?

And, you know, I said yes. This sounds like a great idea. We have a lot of people in our community that can't afford Internet so this I think would serve our community very well.

There were 18 libraries that participated in this pilot project. And of those 18 libraries they provided 95 devices for us to use for that year. And we had seven of those devices.

The grant covered the cost for us which was amazing. Had we not had that grant we would not have been able to participate. It was a large upfront cost in buying the devices. And it just – it wasn't something that we would've been able to afford at that time.

And so this – the State Library worked really hard. We signed up through Verizon Wireless. And they really were the driving force in talking with Verizon Wireless and coming up with a reasonable fee. Had I gone to Verizon myself and tried to get a deal to check out these devices there's no way I would've been able to get the price that Verizon gave to the State Librarian.

And, you know, that's just because she has a little bit more power than I do. And I'll get into the cost here in a little bit.

So as we were setting up the program, all of the participating libraries met virtually every month to talk about the logistics of it. Talk about the policies, what we were going to do if people didn't return the devices, how long people were going to be allowed to check them out.

And that was great because it allowed us to communicate with one another. It allows us to talk about what problems we were experiencing. And then also the successes, some of these 18 libraries had great success with the program like we did. And some did not. And so it really helped to be able to talk to one another about that.

And also as part of the grant the patrons were required to fill out a survey. You know after they had finished with their device and they brought it back they had to fill out a two-page survey. All of that data was collected and compiled. And that link on that page right there will take you to the final report.

Keep in mind that the final report is not divided out by library. So when we look at the report we can't tell what was specifically just with Coffeyville patrons. But it is all of the 18 libraries that were participating.

Next slide please.

So the public response, as I mentioned there were surveys for the grant portion of this. And looking through those surveys the response was wonderful. As you can see there they were asked how satisfied they were with the MiFi devices, how likely they would be to recommend checking out to their friend. And it was great, 52% said very satisfied and 63% very likely to recommend.

We saw as I mentioned some libraries did not have success with this. We did. On average we had over 40 people on the waiting list for those 7 devices. And they were allowed to check them out for a week at a time.

And as soon as they returned the device they say put me back on the list even though they would have to wait another six to seven weeks before it was their turn.

And then obviously on the surveys they also talked about, they were asked what their biggest complaint was. And the biggest complaint there was slow loading or poor reception.

And we did have to kind of battle with Verizon Wireless there for a little bit because they have a tendency to throttle the data on these devices because in their business if somebody has a device and they use a whole bunch of data upfront then they will throttle it to try and limit that person's usage for the rest of the month.

And we had to explain to the carrier that that's not how our program is set up. The same patron is not going to be using it from the first week versus the last week. And it's not fair to the person who's checking it out at the end of the billing cycle to have their data throttled.

So we had a little bit of back and forth with Verizon about that. But that seems to have been rectified.

And then also the poor reception and that just goes down to if a person can't get a good cell phone signal from Verizon in our area then it's just not going to work. And that also goes back to when we were originally setting up the grant. New York actually worked with Sprint for their service.

And unfortunately in my area Sprint just does not have reception. And so we had to go out and find a different carrier that we could partner with. And so Verizon was selected for that.

Next slide please.

So at the end of the grant the grant lasted for one year, at the end of the grant it was up to us, each of the 18 libraries to decide if we wanted to continue the program. As I said we would not have been able to do this on our own had we not been a part of the grant.

But the good news is my Library Board they saw the reception of this type of a program. And they saw how important it was for our community. And they decided that we will continue this. We will find a way to fund this and that's what we did. Went out and tried to find money in order to support this. It is \$41 per device per month.

And so for the first year we had six devices for 2016. And we have bumped it up to seven for 2017.

And a lot of the funding is actually coming from grants. Those two pictures there are grant awards that we received. One of them was actually from Cox Communications which is an Internet service provider. And we had when we were going through that grant process, Cox contacted me. And said I know we're going to have to answer this question. Is your program in competition with our business?

And it was easy for me to say absolutely not. The people checking out these devices will not be able to financially afford to pay for your service.

So once they understood that we were providing service to those individuals that would not be able to afford such a service from them they were onboard. And they gave us money for the 2017 Fiscal Year.

The other thing that we found that's been helpful for the community is every single high schooler at – from our school district is given an iPad. That's just built into their curriculum. They do a lot of work online.

But unfortunately school day is over, the kids go home. And they don't have Internet at home. Their families can't afford it.

And so it's nice for us to be able to lend out these devices in the hopes that the families are using them for educational purposes or for job seeking, things of that nature. You know we can't guarantee that that's what they're doing with the devices but we sure hope that that's what's happening.

And we, you know, we hope that people are seeing the benefit. I know we have a lot of businesses in town that sees a benefit. And are eager to help us sponsor the devices and so that we can continue this program in the future.

And then the final thing that I'll point out there is that we do have a rentable device now so these seven devices that we have currently are for checkout and those are for free. But there is a seven week waiting list on that.

And so we have a rentable device. If someone wants to skip the waiting list, they can do so if they're willing to pay \$5 a day for the device. And we've actually started making money on that venture.

So we're very excited to see how that goes. And possibly maybe adding a second device for that purpose and just trying to offer a unique service to our patrons.

And I would encourage anybody if they have questions about starting such a program, please let me know. Send me an email.

And at that I will turn it back over to Emy.

Emy Tseng: Great, thank you so much. Okay, again if people could type their questions in the chat box or the QA, question and answer box, Karen can queue those up.

But I'm going to actually take moderator privilege and ask the first question. And that is well Brian, but it was sparked by something that Bharat had said that connectivity is not enough.

And I was wondering if you saw any patterns about communities that may have had broadband available but the adoption rates were low versus ones that had higher adoption rates and what could've been the factors in that. You know some – because we think about the barrier rural communities of not having availability. But then places with availability but without high adoption. Do you have any insight into that?

Brian Whitacre: And that's a really good question. And what I would say is if you look at the way that we tried to address the digital divide in the past it's all been about pushing out infrastructure, right. We had these USDA grants to go build-out unserved areas and we're trying to increase competition in rural areas, and things like that.

And what my research says is and again I think Bharat would agree with this, is that's not the end all solution. You need to have that adoption piece of the puzzle.

And what hopefully – actually hope that people can take that away from this presentation and making the case for Digital Inclusion Programs is that, you know, even though we might have decent connectivity we still have to – the studies say you have to get that adoption piece going and so that’s where my research hopefully will be beneficial to people.

In terms of your specific question about why we have areas with high availability but not very good adoption, we just don’t have great answers there. I mean the literature is pretty clear on the things that drive adoption. And that’s things like income, education levels, age levels to some degree.

But we don’t have a good feel for, you know, how we can go in and increase those adoption rates at an aggregate level. You know there are specific things we can do for specific populations. Again that’s why my proposed extension program would be going out to for instance elderly households and just showing them how to use the technology.

And a lot of studies have said that for lower income households you need kind of a support system there to help them through it. And so they actually recommend partnering with libraries and nonprofit organizations to have that support system.

And so there are some specific things like that that you can do. But it’s on a case-by-case basis. It’s not something you can kind of say, well for this, you know, entire state we need to do this. It’s definitely a – you need to understand the demographics of your specific area.

Emy Tseng: Okay, great. Karen, do you want to...?

Karen Hanson: Sure. I have a couple questions.

Emy Tseng: ...phone questions?

Karen Hanson: Yes. So we've had some questions come in for Katie regarding the hotspot rental. One of the questions is if accepting the \$5 rental fee affects grant applications?

And also regarding the devices do you check their browsing history and how are people using their devices (unintelligible)?

Katie Hill: So to answer the \$5 fee, no. As of right now it has not affected grant applications mostly because that we look at that as completely separate services.

You know we have the seven that are allowed to be checked out for free and then we have one separate device that is only used for the pay fee.

So we keep those separate. They're considered separate programs. And so that's how we would write a grant application for that.

For the other question it – I guess it would depend on for the – okay, remind me again what it was because I'm looking at a chat question too.

Karen Hanson: The browsing history.

Katie Hill: The browsing history, absolutely not. One thing that is nice is Verizon doesn't give us access to that which is really good because libraries are all about privacy. We don't want to break somebody's confidence and having them feel that we are looking at that history.

And so it's easier to just say hey, we don't have access to that. So you don't have to worry about that.

And that's the same thing when it goes for their book history. Their checkout history when it comes to books. You know that's something that, you know, we keep that in case they want to know what they read.

But other than that we're not using that data. And so it goes for the same thing with the browsing history, even if we had access to that that's not something that we would care about.

Brian Whitacre: And I want to just add, this is Brian. I actually asked about that in getting our program started here in Oklahoma. I asked if we could have – I didn't want, you know specific web sites. But I wanted them to know, you know, if we could have some general characterizations of what they were doing online. And we were told no. So I don't think that most providers are going to be willing to give you that data.

Katie Hill: Yes. And the only thing that we can see is the amount of data. So the actual gigabyte usage is all we have access to.

Karen Hanson: That's great.

Bharat Mehra: This is Bharat. I would like to also add to that. With the BCP Project in the Blount County Library the browsing history was not available.

But in terms of the first part of the question that the checkout period, what happens if the devices are not returned. Checkout period is seven days.

But after that they charge \$2 per day and additional fees is for all the materials. And if the materials are still not returned within 45 days of the due date then a bill is issued for the cost of materials and outstanding fines and then additionally it goes through the center for making sure there is – the collection agency is brought into the picture in order to then follow-up with the patrons who might not be returning these devices.

Katie Hill: Yes. And we've had similar situations. We have a – ours is \$1 a day late fee for the items and after 7 seven days if it's not returned we completely disconnect service.

And usually once we've disconnected service the device will magically be returned which is great.

But it does happen where that – even that doesn't help. And so we have a very good relationship with our local Police Department. And I'll call them and say hey, can you just go knock on somebody's door for us and say, tell them we just want our device back. That's all we want.

Bharat Mehra: Yes. And that works very well in smaller communities.

Katie Hill: Yes.

Bharat Mehra: And similarly in our partners and various projects that's the mechanism that the agencies are in touch with each other. There are collaborated partnerships going on across different institutions and departments, government and otherwise. And so that kind of facilitates making things work.

Karen Hanson: So if I could ask a slightly different question about messaging in terms of attracting people to workshops, Brian you mentioned the Small Business

Workshop. Katie you mentioned that there are senior outreach services at your library. And Bharat you mentioned that there was some social media kind of training that had been done.

Maybe starting with Brian, what kind of messaging have you found worked best to attract people to those kind of workshops?

Brian Whitacre: So this is something I really struggled with when I first came onboard because, you know, I wasn't – I didn't have a great list of existing small businesses. And I actually tried to mail out. I found a couple and tried to mail out to a bunch of small businesses in the location I was going. And just didn't get much turnout.

So for me it was much more helpful to actually partner with the local economic development organization that I mentioned that already had these contacts. And they were the ones that sent out. I mean they have monthly mailers and they send out emails about their programs and they had this built-in list of people they work with on a regular basis.

And for me that was vital in getting an audience. And so now all I do is say okay, we're going to be at this place at this time. And they get me an audience there.

So that was very helpful from my standpoint because again my job is not really to, you know, attract people. It's to make it available and then hopefully people will show up. So for me that partnership was crucial.

Bharat Mehra: For us in the IT Training and Rural Management Grants the social media played a significant role in having the paraprofessional students and student role plus librarian role we were in the courses that we were teaching because

there are two aspects of social media that were getting integrated there. First aspect was that development and creation of social media. So you have a lost wiki (unintelligible) (tweets), other kinds of products that the students were expected to develop. And not develop in isolation. The tools will need – had to be developed by getting people involved from their local communities, involved in using those tools as a part of their assignment and project process while they were in the courses.

The second aspect was that all these social media, there were some courses which were of course the non-IT courses but elements of IT integrated into the management content which was how can they reach out into the various user communities through social media and get them involved in terms of evaluating and assessment of the various programs and services that the library was involved in. So there were multiple elements there.

And we were using – the students were acting as information bridges in order to be able to work through the time that they were in the courses to be able to develop these tools, social media strategies, applications and then be able to get people involved in that.

Katie Hill: And I would agree with Bharat with social media. We use social media heavily especially Facebook to get the word out about our programs and services.

But also, you know, it's generational. You have to know how to communicate with the audience. And what type of media they will be using.

So with our senior outreach social media may not be the answer. So we advertise in multiple different ways. A lot of times we will just pick up the

phone and call those nursing homes. Hey we're going to be offering a Facebook class. Would any of your clients, your residents be interested?

We also work heavily with the Chamber of Commerce here in town. They are great at making sure to get our information out to the masses both in newsprint, online, through email.

And then also going to the radio stations and just having a, you know, a monthly spot on the radio to talk about libraries and the services that we provide.

Karen Hanson: That's great. Those all sound like excellent strategies.

Slightly different topic now is about partners. You've mentioned some partners like the Economic Development Offices. Brian, do you have other – another national partner that you would recommend and for someone trying to develop a Digital Inclusion Program in rural areas?

Brian Whitacre: Sure. I think a couple of them, you know, have already been hit on. I would argue that extension is a pretty helpful partner. We have Land-Grant Universities in every state. And often times there are people like me that want to get out there and do this kind of work.

And also I think Katie, from Katie's presentation you saw that the providers out there are very willing especially when you say hey, you know, we can potentially help you increase your, you know, adoption rates if you maybe, you know, give us some grants or, you know, help us hold workshops or provide some equipment. They're really usually pretty helpful partners to go out and work with.

So we do try to work with the local providers. We also try to work with some local businesses. I mentioned that in one of my slides. Things like local banks where they can actually go in and demonstrate to people. Hey you can actually bank online now. Some people don't realize that.

And, you know, they're always interested in getting people to see the benefit of their services that they offer things like that. So the local partners, again the ISPs and the banks are ones I would highly recommend.

Bharat Mehra: I would agree also. And I think the – in rural communities the strength and assets of the community are the connections, the personal relationships that people have.

And so I think and the librarians can play a big role in facilitating further developing those kinds of relationships across institutional organizational domains. And in several instances working with librarians, school teachers, educators and colleges and universities, detention offices, hospitals, the government agencies and of course the Internet providers, the corporations and companies.

There is - in some ways it mutually carves out specific project. There is much overlap that can be mapped and tracked and then of course help towards the overall picture which is how can the economy grow. How can people live a positive life and be able to kind of contribute positively towards society and such.

Karen Hanson: Katie do you have any other thoughts to add to that? I also have a different question for you.

Katie Hill: Yes. I would say go to your next question.

Karen Hanson: Okay. So you mentioned that the State Librarian was very helpful. Can you expand on their support in case it might be beneficial for others who are trying to work with their State Librarian?

Katie Hill: Yes. So as I said there's really – it's very unlikely we would've been able to offer this program on our own had the State Library not been involved.

I actually walked into a Verizon Wireless store and did some research on my own. And I said this is what I want to do. How much is it going to cost me?

And it would've cost me triple what the rate the State Library had gotten. So in that case it was very important that the State Library was involved. That's not to say that a library couldn't go out on their own and get such a rate. Because I think this is becoming more popular for libraries to offer such a service.

And I also think that the carriers are becoming more interested in reaching out like that.

Bharat Mehra: We've been very fortunate in Tennessee with the Regional Library System that is facilitated under the domain of the state.

And so we've had direct support from the State Librarian and Archivers in many of these projects. But then also we've had involvement of the Regional Libraries which of course the resources and authority and everything gets channelized through that system.

So in that way the state has been – the state agencies have been involved in helping to reach out to rural librarians who are in (unintelligible) areas where

we might not have access to them. And so being able to get us in touch with them has been kind of instrumental in their ability to support for some of these projects.

Karen Hanson: Excellent. Thank you. And I think Emy is going to want to wrap up shortly so I'll...

Emy Tseng: All right.

Karen Hanson: ...just let folks know that those whose questions were not answered we will try to get back to you offline. So thanks Emy, back to you.

Emy Tseng: Okay great. Yes. And I see there are a lot of questions about the logistics of the Hotspot Program. And just want to mention that Brian is part of a research project which is being led by Sharon Strover at the University of Texas Austin who is looking at doing an analysis and the evaluation of many of these programs.

So I'm going to go ahead and send my email on the chat. And if you're interested in finding out more about that please contact me and also by the level of interest I think maybe we can do maybe another event or make some of these resources available to the wider community.

But I just wanted to go ahead and plug our upcoming events. We have a couple events coming up associated with Infrastructure Week. One is about the next generation technology deployment on May 17th and also we're doing a joint webcast with the National League of Cities and National Association of Counties. So please join us.

And also I'd just like to highlight that we're available to help on this topic as well as many other things broadband related. We have a number of resources. We're also available again for direct technical assistance. So please feel free to contact us either via email or our intake form on our web site or call us. And we can maybe talk to you further about your broadband issues.

So thank you. I'd like to thank the speakers who did a wonderful job. Thank you Brian, Bharat and Katie and I look forward to communicating with you in the future.

Katie Hill: Thanks a lot everyone.

Bharat Mehra: Thank you for the opportunity. It was really nice to be here and share some of our experiences.

Brian Whitacre: Thanks everyone.

Katie Hill: Thank you.

Emy Tseng: And thank you.

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