

Nebraska Broadband Planning Initiative Final Report – April 2015



The Nebraska Information Technology Commission Community Council (NITC), University of Nebraska - Lincoln (UNL), Nebraska Department of Economic Development (DED) and AIM have cooperatively lead the effort to address the broadband planning needs of Nebraska's communities. The Nebraska Public Service Commission was actively engaged in the planning process. UNL is the fiscal agent for the planning part of the grant.

The final report follows the three project areas – capacity building, technical assistance and regional planning. For each section area, the corresponding activities are highlighted. In addition, there is a section on overall impacts and a section on “after the broadband grant.” The overall impacts and next steps are captured in each project area under activities.

OVERALL IMPACTS

Over 8,000 Nebraskans (including 600 youth) provided input into the statewide broadband plan and eight regional plans. Input was gathered through planning teams, surveys, focus groups and forums that were conducted during the initial three years of the grant. Priority areas in the statewide plan include:

- Broadband Availability and Affordability
- Increased Digital Literacy
- Economic Development
- Agriculture

Nebraska businesses (Fall 2013) and households (Winter 2014) were surveyed to better understand how they are using broadband technologies. Findings released include:

- Broadband use has a positive impact on jobs with 364 businesses reporting a net increase of 654 jobs. Broadband use by businesses typically increased revenue 24-45%.
- 83% percent of businesses indicated that broadband availability impacts their decision to remain in their current location.
- 82% of Nebraska households in 2014 have broadband service, up from 76% in 2010.
- Gaps in broadband adoption are closing. In 2014, 65% of persons age 65 and older have broadband at home, up from 48% in 2010.
- 57% of high school students in a Northeast Nebraska survey indicated broadband availability would encourage them to live and work in their current community.

Community outreach activities were essential to building awareness about broadband. Over 2,500 individuals and businesses participated in events such as the annual broadband conference, webinars, and the tech fairs. Best practice videos have been viewed over 5,500 times (2,805 in 2014) and there have been over 26,000 visits (9,257 in 2014) to the website. Technical assistance efforts focused on the priority areas of digital literacy, economic development and agriculture. Highlights include:

- Over 270 businesses attended eight regional technology fairs in the spring of 2014 that brought experts to communities to discuss topics such as remote sensing and cloud computing. Businesses made changes as a result of these fairs. Eighty percent of the participants indicated that they will use or share information related to the cloud. One business owner expressed, *“the Fair was great. We loved how you provided pertinent information in an understandable*

format ... We appreciated the fact that something of this nature was offered in the western part of the state!"

- Collaborating with the Nebraska Library Commission, nearly 250 staff from libraries statewide participated in a UNL train-the-trainer program in the fall of 2014 so that they can more effectively provide assistance to their patrons. 95% of the participants said their ability to assist customers using Excel functions increased a lot or somewhat. One librarian shared, *"The training gave me the opportunity to share and troubleshoot technology frustrations. I learned tips in order to give patrons better access to the Internet and the information they need."*
- Over 150 businesses participated in the Latino Business Conference the fall of 2014. In addition, nearly 80 businesses met individually with key contacts to explore how they can incorporate broadband into their business. As a part of this effort, organizations that have generally worked with this population were also engaged in a train-the-trainer program. Businesses reported making immediate changes as a result of this effort.
- In the spring of 2014, 24 business coaches (economic development professionals) were trained to help individual businesses understand how they can use broadband to increase their economic vitality, to understand their return on investment, and assist them in identifying steps for implementing broadband applications. Over 450 scorecards were created and sent to businesses comparing their business with others in similar industries. Coaches met with over 40 businesses and 24 businesses reported moving to action.
- The Nebraska Broadband Initiative was one of eight UNL programs featured at the annual Husker Harvest Days in 2014 that brings over 100,000 people to this three day event. Team members were available to meet with attendees.
- Nearly 400 people attended the annual conference, including 200 high school students from across the state who participated in a special youth track. Conference evaluations were uniformly positive.

AFTER THE BROADBAND GRANT

The collaborative nature of the Nebraska Broadband Initiative has been a key to the accomplishment of the goals of the grant. The PSC, NITC, UNL, DED and AIM have cooperatively led the effort to address the broadband planning needs of Nebraska's communities. Each entity has strengths in working on aspects of the broadband plan and in moving efforts forward. The team plans to continue to explore ways to address broadband adoption and utilization as a team and within the individual organizations. The team will continue to meet in transition. Some steps/ideas that have been identified include:

- NITC Community Council is monitoring metrics identified in the Statewide Broadband Plan and encouraging efforts to increase the adoption and utilization of broadband. The Council will continue to encourage movement forward in the priority areas identified in the plan.
- The PSC will be continue to map data for the Nebraska Broadband Map.
- UNL's annual Nebraska Rural Poll will feature some questions in the future to continue benchmarking broadband adoption and utilization.
- The Nebraska Broadband Initiative site will continue to be hosted by the University of Nebraska-Lincoln and will be maintained and updated. A launch of the new website and the community planning workbook will occur in May or June 2015.
- The University of Nebraska and NITC Community Council are exploring how to reach more communities in their planning efforts.
- NU Extension will be working with two communities in the USDA SET program that explores broadband from a regional perspective. In addition, a NU Extension program, Entrepreneurial

Communities Activation Process (ECAP), identifies digital connectedness as one of the 8 characteristics of an entrepreneurial community.

- The NITC Community Council is in the process of creating additional supplemental resources to assist communities in broadband planning. This effort is in the early stages of development and a link will be available from the main broadband site.
- AIM/Broadband Initiative partners are exploring how to continue an annual conference or related events to increase the adoption and utilization of broadband. In 2015, broadband related sessions will be offered at the University of Nebraska's Rural Futures Conference in October.
- AIM/UNL/NITC are exploring how to work with libraries to increase adoption and utilization of broadband ranging from train-the-trainer sessions to classes related to coding for youth.
- The team is exploring creating case studies highlighting how Nebraska communities have enhanced their broadband speeds.
- The team is exploring how to continue business efforts that were started through the grant.

CAPACITY BUILDING

Capacity Building included benchmarking data and development of awareness materials to increase the adoption and utilization of broadband. Projects included:

Internet Connectivity and Use in Nebraska: A Household Survey – initial and follow-up.

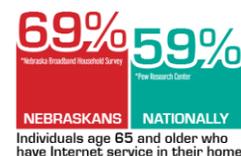
Nebraskans were surveyed about their computer and Internet usage, challenges and desires for the future. The 2010 survey was mailed in February 2010 to 6,600 Nebraskans and achieved a 47% response rate. A follow-up survey conducted in Q1 2014 achieved a 35% response rate. The 2014 follow-up household survey was expanded to oversample in regions where there was less broadband adoption. Reports for both surveys are available at <http://broadband.nebraska.gov/links-resources/benchmark-data>.

The report highlights regional, education, income, age, gender, racial and ethnic group comparisons. The follow-up household survey conducted found that technology use has increased in Nebraska. Key findings include:

- 86% of Nebraska households have Internet access at home in 2014. This has increased over the past four years, from 81 percent in 2010.
- 82% of Nebraska households in 2014 have broadband service, up from 76% in 2010.
- Gaps in broadband adoption are closing.
 - In 2014, 65% of persons age 65 and older have broadband at home, up from 48% in 2010.
 - 53% of those with incomes less than \$20K have broadband at home in 2014, compared to 44% in 2010.
 - Adoption increased in all regions of Nebraska, especially in the Central Region. 73% in the Central region of Nebraska had broadband in 2014, compared to 56% in 2010.

Older Nebraskan's Technology Use

The Nebraska Broadband Household Survey shows clear usage patterns among older Internet users. These patterns are positive compared both to past and national usage.



Location Impacts Usage



Highlights and full reports are available on the broadband website, <http://broadband.nebraska.gov>.

Next Steps: The [Nebraska Rural Poll](#), in its 20th year, is an annual survey conducted by the UNL Department of Agricultural Economics in partnership with the NU Rural Futures Institute. Some questions will be added to the Poll to continue to benchmark broadband adoption & utilization. The full household survey will not be conducted unless additional funding sources are secured.



Business Survey



Businesses were surveyed/interviewed through the [Department of Economic Development's Business Retention and Expansion Program](#) to identify the strengths and challenges businesses face using technology. The data collected from the interviews is tracked through the [Blane Canada LTD, Synchronist Business Information System®](#). In 2009, over 400 key businesses were

being surveyed annually about growth potential, value and risk of businesses within the local, regional, state and national economy. There were some technology related questions included in 2009 and with the assistance of the Broadband Initiative additional questions were added that were completed during Q2 2012. The data has been used to analyze trends in industry sectors and the impact of the current business climate on their plans for future growth.

To engage communities to use Synchronist, DED conducted informational webinars and met with contacts throughout the state. Twenty-seven communities received licenses through the Nebraska Broadband Initiative with a goal of gathering additional information. Communities slowly bought into the process and due to the length of the survey did not gather as much technology-related data as anticipated. The system continues to be used and analyzed by the Department of Economic Development staff. The following recent comments are one example of the type of information that is being gathered.

- November 2013 – Provider broadband is not adequate
- April 2014 – Broadband quality severely lacking
- July 2013 – Adopting labor saving technology
- October 2013 – As technology changes, need to hire individuals with skills.

Other questions in the survey include rating business satisfaction of various services/utilities such as broadband, internet and cell phone service.

Next Steps: Businesses continue to be surveyed using DED's BR&E program. The Department of Economic Development continues to be supportive of efforts and working to engage community contacts to work with businesses to understand technology efforts and opportunities for growth.

Inventory of Broadband and Digital Literacy Programs.

Throughout the grant, efforts were made to identify various trainings and resources to assist communities. While an activity of the grant, funding was not allocated for this project. Instead, the

communications coordinator hired through the grant and partnering organizations researched and maintained this inventory. The resources continue to be available on the broadband.nebraska.gov website. An update of the website was completed in April 2015. Currently there are two areas of focus:

- [Other resources](#) that includes general background resources such as internet 101 or resources that can help expand services in a community.
- [Online educational resources](#) highlights University of Nebraska resources by topic area. Some resources such as videos were created out of the broadband initiative effort. Others were developed outside of this project.

Additional resources will continue to be added.

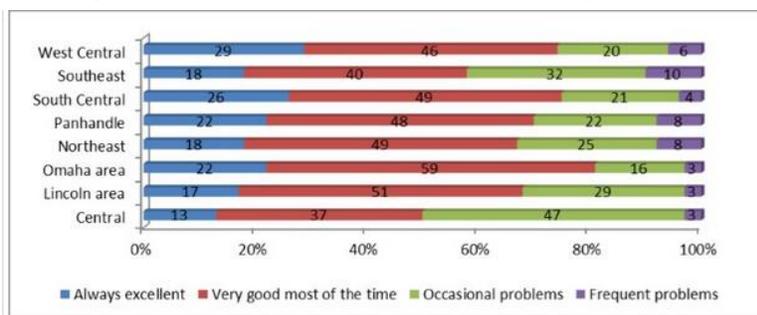
Next Steps: The Broadband Initiative online educational and other resources will continue to be updated and maintained on the <http://broadband.nebraska.gov> site. In addition, the Nebraska Information Technology Commission Community Council is in the process of creating additional supplemental resources to assist communities in broadband planning. This effort is in the early stages of development and a link will be available from the main site.

Focused Surveys – Strategic Network Group Business Survey.

The Strategic Network Group (SNG) conducted a business survey that was launched by the Lt. Governor in September 2013. The decision to focus on businesses was encouraged by the regional planning teams. The planning teams, survey of economic developers and focused conversations consistently showed that many businesses in the State of Nebraska do not understand how technology and broadband can enhance their bottom line. To have a better understanding, we wanted benchmark data for the state and to build capacity of those working with businesses. The capacity efforts are captured under technical assistance. Over 1,100 organizations (881 businesses) participated in the assessment. Results indicated that Nebraska businesses are utilizing technology applications such as teleworking and selling goods/services more than other states that have been surveyed by SNG. The full report is available at <http://broadband.nebraska.gov/links-resources/benchmark-data>. Key findings include:

- Broadband use has a positive impact on jobs with 364 businesses reporting a net increase of 654 jobs. Broadband use by businesses typically increased revenue 24-45%.
- 83% percent of businesses indicated that broadband availability impacts their decision to remain in their current location.
- Over 50 percent of businesses say that the availability of broadband services was essential or very important for selecting their business location.

Broadband utilization varies by region and community size, with businesses in the Omaha and Lincoln areas reporting the highest utilization of Internet technologies. Businesses in Central Nebraska (Cherry, Keya Paha, Brown, Rock, Boyd, Holt, Blaine, Loup, Garfield, Wheeler, Custer, Valley, Greely, and Sherman Counties) reported lower levels of utilization of Internet technologies. Businesses in isolated small towns reported lower levels of utilization of



broadband technologies than businesses located in larger communities. A UNL Ag Economics Cornhusker Economics report, [Technology Use by Businesses in Nebraska: Regional Comparisons](#), further compared the regional differences. The

direct link is: <http://agecon.unl.edu/technology-use-by-businesses-in-nebraska-regional-comparisons>. The comparison highlighted that there are regions in the state that face challenges to encouraging technology use by their businesses. In particular, businesses in the Central region have on average slower internet connection speeds. They are also less likely than businesses in other regions to utilize more advanced internet applications. Opportunities to increase the utilization of broadband applications exist in this region, but many businesses will require faster connection speeds to do so.

Agricultural businesses were also explored in more depth in a [Technology Use in Agriculture](#) article. Overall, agricultural businesses have higher rates of using dial-up, satellite, fixed wireless and DSL connections when compared to all Nebraska businesses. They are less likely than other businesses to have cable, fiber, and T1 connections that have higher levels of satisfaction with both speed and reliability. Given that, it is no surprise that agricultural businesses report lower levels of satisfaction with their Internet speed compared to all Nebraska businesses. Conversely, only 12 percent of agricultural businesses say their Internet speed is very fast, compared to 21 percent of all Nebraska businesses.

Next Steps: The SNG survey established benchmarks to explore. The information continues to be used in working with businesses. Efforts are underway to connect with those businesses that expressed higher dissatisfaction with broadband. First, to see if connectivity has improved and to see if there are other options in their region to improve their connectivity.

Government and Economic Developer Survey. To gather information on access, adoption, usage, and technical assistance needs of all county and community governments, chambers of commerce, and for economic developers, an on-line survey was conducted. Surveys were conducted in collaboration with the Nebraska Economic Development Association (NEDA), Nebraska Association of County Officials (NACO), and the League of Nebraska Municipalities (League) during Q2 2012. During Q4 2012 the full reports were written and are available at <http://broadband.nebraska.gov/links-resources/benchmark-data>.

This information supported the development of regional and community technology plans and the information/data was shared with respective associations. The data has also been embedded into the updated community planning workbook.

NEDA Results - The NEDA online survey, sent to 333 members, received a 23% response rate. The report was emailed to the membership and a pre-conference session with over 50 NEDA members was held to discuss the findings. The NEDA results influenced the decision to conduct a more in-depth business survey and to build capacity amongst economic developers to better understand the technology needs of businesses in their communities.

Conversations with the NEDA membership on survey results identified the importance of collaboration and setting priorities. Successful collaboration examples included building a coordinated website with Chambers and Economic Development; and, broadband providers and businesses banding together to provide broadband. Establishing priorities to allocate resources towards broadband and technology training and upgrades were also identified as important.

Economic development emerged as one of the priority areas in the state broadband plan. Technical assistance identified in years 4 and 5 of the Broadband Initiative were influenced by the economic developers who encouraged training and collaboration.

NACO Survey – The NACO survey was emailed to 871 members and achieved a 40% response rate. Results were shared with NACO leadership. Highlights include:

- NACO members in nonmetropolitan counties are less likely than members in metropolitan counties to see broadband services being used effectively in their counties for reducing costs of government operations.
- 80% of county officials have a webpage that contains basic information such as contact information (96%), forms to download (55%) or meeting schedules, agendas and minutes (52%).
- Some online services are not being utilized as often: ability to register vehicles online (31%), ability to pay property taxes online (24%), ability to pay tickets online (14%) or ability to broadcast public meetings online (2%).

Budget issues are the biggest challenges facing county officials in moving services online. Just under one-half of the officials (41%) rated “funding to implement” as a large challenge to moving county government services to the Internet. And, over one-quarter of the officials rated inability to keep upgrading new technology (28%) and ability to accept payment by credit card (26%) as large challenges. The officials in nonmetropolitan counties are more likely than officials in metropolitan counties to rate the inability to keep upgrading new technology as a large challenge to moving county government services to the Internet. Just under one-third (31%) of the officials in nonmetropolitan counties rate this item as a large challenge, compared to 12 percent of the officials in metropolitan counties. Looking at this item further by region of the state, the officials located in the North Central region are the group most likely to rate it as a large challenge. The percentages of officials in each region that rated inability



What Will Drive Adoption and Utilization?

- Adoption (51%)
 - Training (58%)
- Availability (29%)
 - 55% desire more
- Affordability (20%)
- Best Practices --
 - Collaboration
 - Setting Priorities

Training – serious shortage of technology training for business owners

Local company laid fiber throughout community

Rural Nebraska without fiber is being left further behind

Joint effort with city, chamber and economic development

Line of communication between local officials and broadband providers

to keep upgrading new technology as a large challenge include: North Central (40%), Panhandle (39%), South Central (29%), Southeast (27%) and Northeast (18%).

League of Nebraska Municipalities online survey was sent to 362 members and achieved a 40% response rate. Results were shared with the League leadership and a session was held at the annual conference to discuss the findings. Highlights include:

- Most (69%) have a website for their office.
- Most currently have basic information included on that website such as contact information and information for new or prospective new residents.
- E-government features on community websites are limited. For example: ability to broadcast public meetings online (5%), ability to pay for building permits online (3%) or ability to submit bids or proposals online (1%). But, approximately two in ten officials are anticipating adding these features to their website.

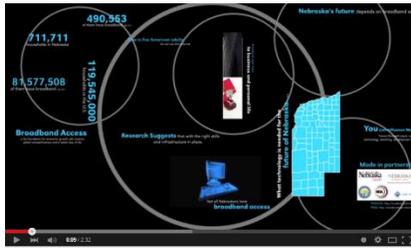


Next Steps: Results were shared with associations. The NACO Leadership program hosted and led by NU Extension has incorporated the importance of broadband into the curriculum. The Department of Economic Development and University of Nebraska continue to work with the Nebraska Economic Development Association. Future benchmarking will not occur unless funding is secured.

Creating Broadband Plan/Administrative – The Nebraska Public Service Commission (PSC), University of Nebraska-Lincoln, Nebraska Information Technology Commission (NITC), Nebraska Department of Economic Development (DED) and the AIM Institute (AIM) collaborated on this Initiative. Each of the partners was responsible for aspects of the effort as highlighted below. Team members from each of the entities served as the steering team for the planning activities. The group met twice a month to move the Initiative forward and provided a report quarterly to the Public Service Commissioners. In addition, regular updates were given to the NITC Community Council. Many others were engaged in various activities in this project. Below is a brief highlight of the areas that each organization was responsible for accomplishing:

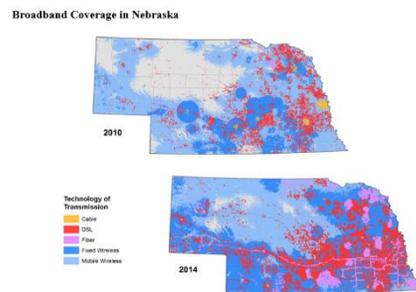
- PSC – overall lead of the broadband mapping/planning effort, mapping broadband availability across Nebraska. The PSC was an actively engaged in the planning efforts. Note: mapping accomplishments are not included in the planning report.
- AIM –led the organization of the annual statewide broadband conference, created educational videos, and worked in underserved areas in Omaha.
- NITC – led the development of the statewide plan and community planning workbook and served as the political connection to the Governor’s office. The NITC Community Council served in an advisory role.
- DED – conducted initial broadband business surveys and served as a connection to the business community.
- University of Nebraska-Lincoln - led planning efforts including: awareness building; creating benchmark data through surveys/focus groups; and technical assistance through educational videos, webinars, tech fairs, train-the-trainer sessions, and business effort. Fiscal responsibility for the planning activities. Roles included planning, teaching, research, and coordination.

Administrative activities included developing marketing strategies and materials for various conferences, presentations and overall planning for the Initiative. A few of the specific activities connected to the administrative efforts are highlighted.



Awareness - To create awareness and promote interest and action among the general population of Nebraska, the Nebraska Broadband Initiative used a number of marketing strategies including press releases, social media (twitter, Facebook and pointing to website) and development of promotional materials, including videos. Distribution included online, print, radio and television outlets. This has led to further in-depth articles in newspapers interviewing business owners and community leaders in addition to editorials. To develop the press releases the Nebraska Broadband Initiative has worked with the University of Nebraska Institute of Agriculture and Natural Resources News Service.

Building Awareness of the Broadband Mapping Efforts. The planning initiative working in conjunction with the PSC’s mapping efforts developed promotional materials to encourage citizen’s to utilize the Nebraska Broadband Map and to download the Mobile Pulse app to help measure cell phone service. The broadband landscape has changed in the last five years and materials that highlighted this difference have been helpful in building awareness of what has occurred and spiked interest/desire to increase broadband availability in areas that want more options. These efforts included creating public service announcements; promotional materials for events; webinars/videos focused on how to use the map; and, having a presence at the tech fairs.



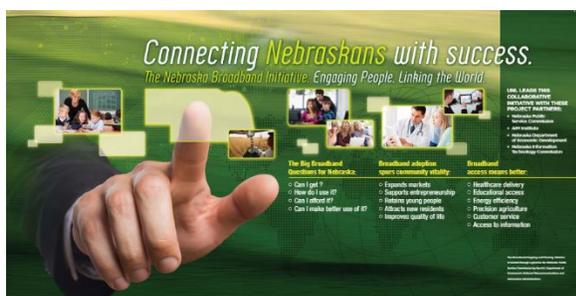
Events and Conferences – Broadband Planning Initiative participated in various events throughout the five years. This includes having a presence at conferences such as [Infotech](#), [NEDA Conferences](#), [NeAta](#), [Rural Futures Institute](#), and other statewide events.

At the request of the Nebraska Public Service Commissioners, efforts were made to gain further perspective from the youth. In 2014, the Broadband Initiative had a presence at both the Future Farmers of America (FFA) and Future Business Leaders of America (FBLA) annual conferences where over 300 youth were asked how satisfied they are with their internet access and two additional open ended questions asking why the internet is important to them and what needs to be improved. Youth overall were satisfied with their broadband connection with 68.4% of the FBLA youth indicating that they were satisfied compared to 75% of the FFA youth. This was surprising given the higher representation from rural communities at the FFA Conference with 66% living outside of a town and at the FBLA Conference 34% living outside of a town. In speaking with the youth, a number shared that the connection has improved in the last two years at their homes and schools.



Consistently youth commented on the survey that there was a need for higher speed and consistent service especially for those living outside of city limits. Homework was the primary reason youth accessed the internet followed by entertainment. Using the internet is part of the youth daily life. They expect the service to be there. Youth were also videotaped sharing additional plans which will be shared in conjunction with the Statewide Plan.

In 2014, the Nebraska Broadband Initiative was asked to be one of eight University displays at [Husker Harvest Days](#) that attracts over 100,000 agricultural producers. There were not any direct costs to the Broadband Initiative for this effort as the University created two displays



and registration for the three-day event. To further increase the understanding of how broadband can be utilized in the agriculture industry, the Broadband Initiative planning team featured the NIMBUS (Nebraska Intelligent Mobile UnManned Systems) display. The purpose was to highlight how broadband can be used in practical applications such as surveying crop heights during a growing season.

[Evaluation](#) of the broadband project conducted by the Heartland Center for Leadership Development was completed in Quarter 1 2015. The report highlighted impacts and suggestions for the future. These recommendations include:

- Continue the annual conference
- Sustain collaboration among stakeholders, including providers
- Maintain the mapping element
- Find ways to continue youth engagement
- Maintain a public education strategy

The full evaluation is available on the broadband website, <http://broadband.nebraska.gov>.

Next steps: Sustainability has continued to be a topic of conversation for the Broadband Planning and Mapping efforts. The Broadband Initiative planning team continues to meet monthly and plans quarterly face-to-face meetings. Building upon the recommendations in the evaluation and the statewide plan, team members are identifying strategies to continue efforts. This includes the NITC Community Council taking a lead in developing supplemental resources to assist with the community broadband planning efforts. The University of Nebraska, AIM and the Nebraska Department of Economic Development each have strategies to connect with businesses. The [NITC Community Council](#) is also one organization that brings all Broadband Initiative partners and others together on a regular basis to address broadband and technology issues across the state.

TECHNICAL ASSISTANCE

The Nebraska Broadband Technical Assistance Program provided technical assistance on supporting entrepreneurs through technology. Projects included:

Statewide Conference. The annual statewide conference focused on broadband adoption and utilization and brought together many industries including those working in economic



development, telecommunications industry, education, state government, and local government personnel. AIM led the conference planning and coordination.

Four statewide broadband conferences, with more than 200 participants at each conference, were held in Lincoln in 2011-2012 and in Kearney in 2013-2014. In 2011, conference participants included 125 adults. In 2012, 195 total participants included 50 youth. In 2013, there were 205 total attendees including 80 students. Finally in 2014, 165 adults and 180 students attended for a total of 345 participants. Youth participated in specially-designed youth tracks for career and technical exploration. Numerous keynote addresses and breakout sessions engaged participants in learning about trends in broadband applications and success stories from fellow Nebraskans. Vint Cerf addressed the conference in 2012 and is one example of the quality key note speakers at the conference.



The conference archives are available at <http://broadband.nebraska.gov/links-resources/events>.

The Broadband Initiative evaluation identified the annual conference as a critical factor impacting education, partnerships and youth engagement. Testimonials, paraphrased from interviews during the conference, emphasize the importance of the conference.

Community Economic Development Director— This conference has helped me get out of my comfort zone; it's gotten me much more aware of technology issues and broadband.

Rural Telecommunications Company Representative—At the conference, we learn what people want so adoption can go up. The research has created a better data base that identifies coverage. But the providers are learning that we are not doing enough training. Small Telco's are investing like crazy, with their own money. We can do upgrades to increase speed. This conference raises awareness among communities and providers, who, in Nebraska, are working together collaboratively. Nebraska is so far ahead of so many other states. To get support to continue the conference, all they have to do is ask.

Next Steps: Exploring how to continue an annual conference or related events to increase the adoption and utilization of broadband. During 2015, there will be broadband related topics at the University of Nebraska's Rural Futures Conference in October. The focus of the 2015 conference is "Vision Inspires Hope" and the broadband initiative planning team is working with the Rural Futures Institute to have several broadband related sessions including a pre-session.

Regional Workshops/Tech Fairs. Regional tech fairs were held across Nebraska in the spring of 2014. Taking expert resources on broadband technology utilization to regions across the state was the focus of the tech fairs. Over 140 businesses/organizations attended eight technology fairs held regionally and over 150 businesses/organizations participated in a Latino Business conference in Omaha, Nebraska.

The regional tech fairs featured opportunities for business owners, ag producers and communities to learn about how to utilize broadband/technology. Topics included remote video (security and monitoring), cloud computing, security, mobile technology and innovative technologies. Following are comments shared by attendees:

- We wanted to move to the cloud and many of my questions were answered. And, I have a contact name.
- The security information was very helpful and just what I needed to know.
- We were considering using remote sensing in our business and after the session understand how it can be of value to our business
- The mapping information is just what I needed. Many of our clientele live outside of the community and now I have a resource to help find a service.

This quote provided by one participant, shares how impactful it was to have experts available at the fair. *“I recently attended the Broadband Technology Fair at Mid Plains Community College. I thought it was going to be very “techy” and completely over my head but I was very excited to come away with so many new tools and ideas to implement at Pro Printing and Graphics. We’re looking forward to integrating new mobile tools and project management programs presented at the Fair” – Nichole Ediger, Pro Printing & Graphics*

Other impacts from the tech fair include:

- The Economic Development Director in Seward County made a connection at the Seward technology fair that has resulted in broadband fiber being pulled through the main business district of Seward this past fall, 2014.
- As a result of the connections made at the Grand Island Broadband Technology Fair, industrial park businesses have now identified new alternatives to getting higher Internet speeds to their businesses (through discussions with Economic Development staff, city council members and staff of the Public Service Commission).



The tech fair presenters were captured on video and are available at <http://broadband.nebraska.gov/links-resources/videos/tech-fairs>. Key to the success of this effort was the collaboration of the Broadband Initiative partners and UNL Ed Media in attending the sessions, encouraging attendance and sharing expertise.

Over 150 businesses participated in the Latino Business Conference the fall of 2014. The conference was a collaborative effort with a number of organizations that work with Latino businesses.



Organizations included the Midlands Latino Community Development Corporation, Catholic Charities, Rural Enterprise Assistance Program, Nebraska Hispanic Chamber of Commerce and the Nebraska Department of Economic Development. The *Connecting Businesses*

through Technology – Transitioning from Paper to the Smart World conference featured a combination of keynote speakers and breakout sessions. All sessions were geared to increase awareness of how technology, specifically social media, can enhance businesses. Translators were on-hand throughout the day. Ongoing tech fair related topics were available to participants to ask specific questions regarding e-banking, cool tools and mobile apps. In addition to the conference, a train-the-trainer was held with the organizations to increase these organizations’ knowledge in working with the Latino businesses.

Think Digital. Go Digital. Prosper in the Digital Economy
Pensar, andar y prosperar en una economía digital

Next Steps: The tech fair videos continue to be available on [broadband website](#). Information is available topically and under the tech fair video on the newly revised website. The University

will continue to work with businesses. The Broadband Initiative is exploring opportunities to continue the Latino Business Conference in Omaha. Additional funding is needed to host tech fairs across the state and the Latino Business Conference.

Webinars. Fourteen (14) webinars were developed in 2012 and 2013 to increase the adoption and utilization of broadband. The webinars are archived at <http://broadband.nebraska.gov/webinars>.

Participation in webinars averaged 50 participants and follow-up viewings have ranged from 29-394. Webinars focused on cloud computing, security and tablet integration have been viewed most often. The later webinars were more interactive and featured interview type sessions.

Taking Advantage of Mobile

March 20, 2013

A new way of accessing information has emerged with mobile devices. Learn how to effectively promote and support your business operations with mobile access and applications. Share this [summary](#) of the presentation.

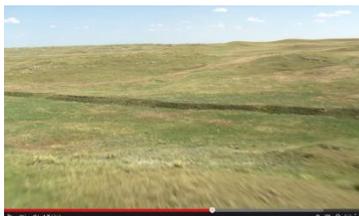
Next Steps: The webinars are archived at broadband.nebraska.gov. Additional webinars will be created if there is demand. Funding will be necessary to develop more interactive videos.

Best Practice Videos. One way to expand broadband adoption across Nebraska is to learn from communities, businesses and other organizations that are the early adopters and “get it.” Forty-four (44) best practice videos highlighted the benefits of broadband technology and are available at <http://Youtube.com/broadbandnebraska>. In addition, the seven new tech fair videos have been added to the channel as well as other clips used to promote broadband usage. In total, there have been over 5,500 views of the various videos. Best practice videos were rotated and featured on the front page of the web site through 2014. This continued to increase viewing of the videos. For example, a video highlighting the Dinklage feedlot now has 330 views with over 100 views in 2014.

Each best practice videos explored:

- How has the business/organization applied broadband services in business operations?
- How has the business/organization utilized broadband reached a broader range of customers?
- What broadband technologies is the business/organization using?
- What are two or three pieces of advice would you like to share?

Success stories captured include a precision manufacturing company located in a town of 1,700 people that is aerospace certified and services a global market. The company’s network



administrator/technical support person teleworks 3 weeks a month. In another example, an 11 store dealership uses broadband to connect to all entities and reach younger farmers. Another video highlights how a remotely located, long-term care facility connects to physicians and family. Advice included encouraging businesses to get to know their service providers and to think outside of the box in approaches to meet broadband needs.

Videos are archived at <http://broadband.nebraska.gov/links-resources/videos> or visit the YouTube channel at - <http://Youtube.com/broadbandnebraska>.

Next steps: The broadband videos are archived and the examples have been included in the newly revised Community Planning workbook. Additional funding will be needed to capture more best practices.

Entrepreneur Acceleration System (EAS). The Gallup EAS program is part of the [Nebraska Department of Economic Development’s Business Retention and Expansion \(BRE\) program](#). EAS creates the

opportunity to work with businesses on the local and state climate. Growing small business is the goal of the Gallup EAS program, focused on behavioral economics. The Gallup program measures and then develops the entrepreneurial abilities of the individual(s). In 2011 and 2012, participants were sent an additional questionnaire related to their broadband usage, satisfaction and plans.

The customized questionnaire focused on broadband usage was sent to all businesses participants that participated in the pilot project. In 2011 and 2012 there were two cohorts involved in the Gallup EAS project that included 284 businesses and 1,296 individuals (owners/managers/employees). Each business worked with a guide through the Gallup EAS process. In total there were 71 guides involved during the two-year period. Participating companies attend four core workshops led by Gallup in Quarter 1 through 3 of 2012.

The technology survey completed by the businesses found that:

- 81% indicated high-speed internet access is as essential to their business as other main services such as water, sewer and electricity
- 90% responded that mobile access to the Internet will become more important to their business operations in the next 5 years
- 57% of respondents indicated businesses like theirs are only able to function efficiently if they and their customers have high speed internet access
- 43% indicated that their business needs higher speed internet in order to expand in this community.

Many of participants indicated broadband has helped to improve competitiveness, reach more customers and interact with vendors and partners. A follow-up survey to participating businesses in the 2011 training found that 65% of the companies saw an increase in profit. This is not necessarily due to the adoption or usage of broadband.

Next Steps: The Nebraska Department of Economic Development continues to connect with the EAS Program. The initial pilot has been adapted. DED continues to work with core businesses on their technology needs that in the long term increase profitability.

Technical Assistance Expertise. Economic development was identified as one of the priority areas in all regional plans and the statewide plan. The surveys, focused conversations and planning efforts have consistently shown that many businesses in the State of Nebraska do not understand how technology and broadband can be used to enhance their bottom line. As described earlier under the business survey, in 2013, the technical assistance efforts emerged from the regional planning process. Throughout all regions, there was a need to increase awareness to businesses and service providers. The business survey was launched September 4th by the Lt. Governor. Over 1,100 businesses participated in the survey that received personal invitations through an email. Other businesses also had the opportunity to participate through the website. Nearly 500 businesses receive scorecards that highlighted how their business compared to other businesses from similar industries.

Key points of this initiative include:

- *Benchmarking Data* - Gather data through a business assessment to establish initial benchmarks and measure impact (see Business survey under Capacity Building).
- *Providing Resources to Businesses* - Help individual businesses understand how they can use broadband to increase their economic vitality and to understand their ROI and assist them in identifying steps for implementation.

- *Building Capacity* - Build capacity in Nebraska for business coaches (i.e., economic developers, extension educators and Department of Economic Development field staff) to work with businesses and communities to better utilize broadband.

Providing Resources to Businesses - Businesses that participated in the survey were connected to resources to help them better understand broadband. All participants received an email note sharing on-line resources that were available through the broadband site, announcing the tech fairs and upcoming annual conference. All businesses also received a link to the full business survey report. Nearly 500 businesses received a personalized scorecard comparing their company's use of broadband with peer businesses in Nebraska and all across the nation. The scorecard was provided to those businesses that received a score of 7 or lower, provided recommendations for improving profitability and expanding business operations through the utilization of technology. Businesses were also given the opportunity to have their website examined as part of study with expectations to change. Coaches were identified to review scorecards with businesses.

Building Capacity - Coaches

In the spring of 2014, 24 business coaches (economic development professionals) were identified and trained to help individual businesses understand how they can use broadband to increase their economic vitality, to understand their return on investment and assist the business in identifying steps for implementing broadband applications. Over 450 scorecards were created and sent to businesses comparing their business with others in similar industries. Coaches met with over 40 businesses and 24 businesses reported moving to action. Experts, within UNL Ed Media, were also available to assist coaches with their questions. A business coach manager was hired through the initiative to focus on this effort.

When a business met with a coach, they were more willing to take steps to increase their use of technology. Examples of business improvements include: a company getting specifics on how different technologies can help their business, a company that wanted to develop a better database system and other businesses were interested in expanding their business to utilize remote sensing.

Latino Businesses –

In the fall of 2014, 77 Latino businesses were interviewed on their technology usage. The survey was abbreviated and primarily focused on technology applications. The survey was developed in collaboration with organizations that primarily serve the Latino business population. The organizations included the Department of Economic Development, Catholic Charities, REAP, Midlands Latino Community Development Corporation and AIM. The results of the survey drove the content for the Latino Business Conference sessions. Many of the businesses were smaller and primarily used mobile technologies. The organizations are continuing to work with the businesses and exploring how to better serve them. A Latino Business Liaison worked with this effort to help move the process forward.

Next Steps: Additional funding would be needed to continue this effort. While capacity increased, the coaches (primarily economic developers and other service providers) were not comfortable in suggesting a certain approach for a business. They were comfortable in asking questions and exploring opportunities. They wanted experts to help in answering the specific technology questions. The Latino business organizations are continuing to meet with businesses.

Broadband Portal Development – The central broadband portal was initially launched in April 2012. Since that time there have been 26,879 visitors with 18,325 unique visitors. The average session duration has been 3:26. Since December 2014 through January 2015, there have been 859 visitors with 642 unique visitors.

Throughout the grant, content was continually updated. The majority of visitors were seeking conference information, testing speed and going to the statewide map. Content continues to be updated on the site.

The broadband site was reorganized and redesigned during the Fall of 2014 and will be launched in May or June 2015. The newly designed site is organized with the end-user in mind and pulls together the content that has been created as a result of the Nebraska Broadband Initiative.



A component of the new site is the newly revised online community planning workbook, "[Leveraging Broadband in Your Community](http://broadband.nebraska.gov/workbook/html5/index.html)." The workbook that was initially developed in 2003 was revised at the beginning of the planning process and transitioned to the online version. The workbook focused on the adoption and utilization of broadband. Nebraska examples and resources are included in the workbook. Sections include community, leadership, support and advocacy; broadband availability & affordability; skilled it workforce; and technology adoption. The workbook can be found at - <http://broadband.nebraska.gov/workbook/html5/index.html>

Next steps: The website, hosted by the University of Nebraska-Lincoln, will continue to be maintained and updated. A launch of the updated website and the community planning workbook will occur in May or June 2015. The NITC Community Council and the University of Nebraska-Lincoln will both be working with the community planning workbook.

LOCAL AND REGIONAL PLANNING

The Nebraska Broadband Local/Regional Technology Planning Teams program augmented regional planning approaches identified in the initial grant application with community planning, business and entrepreneurial discussions, government discussions, and agricultural discussions.

Regional Planning Teams. Regional planning teams were formed to conduct regional assessments, prioritize opportunities, and develop strategies. Regional coaches assisted planning teams in the development of plans. Each region held a regional forum to engage Nebraskans in the regional planning efforts. Over 300 individuals participated in eight regional forums. Of these 300 individuals, around 80 initially indicated a willingness to serve on the planning teams. In addition, 105 individuals participated in 17 focus groups to identify priorities.

Each region used a variety of approaches to gather data and engage constituents in the planning process. For example:

- The Western region hosted an Accelerating Collaboration Summit at the Gering Civic Center in May 2012. Over 40 leaders, including representatives from broadband providers, nonprofit, state, federal, and university participated in the planning session process that focused on how broadband can be leveraged to increase economic development and improve quality of

life. Tourism was identified as an industry that can be strengthened in the region and the topic was added to the agenda but also influenced the annual tourism conference held in the state.

- The Northeast region, working with the schools, surveyed over 300 youth. A key finding: 57% of high school students in a Northeast Nebraska survey indicated broadband availability would encourage them to live and work in their current community.

The regional plans reflect the differences and similarities in broadband adoption and Internet use across the state. Digital literacy, health care and economic development, including agriculture, are cited often, as they are clearly areas where Nebraskans, and the communities in which they live, have the most to gain by adopting the latest broadband technologies. Each [regional summary](#) is unique and reflects results obtained through a process identified by each regional planning team. Full copies of the regional plans are available at <http://broadband.nebraska.gov/about-nebraska-broadband/regional-plans>.

Following are overarching statements that drove each regional plan listed in order of the numbering system identified on the map:



1. Western Region - A regional summit was held that identified a long-term vision that increases youth retention, increases business development and transition, and decreases the digital divide and deserts. Digital Literacy and Adoption & Advanced Technology Training; Economic Development (including tourism); and Agriculture were identified as priority areas.
2. North Central Region - Three priorities were identified at the broadband regional forum and further enhanced by the planning team and focused conversations. Currently, access is varied across the region. For the priorities to be achieved, all North Central region residents and businesses must have access to the various types of communication technology for future needs. The priorities are in the areas of Business & Economic Development, Education and Health Care.
3. New Frontier Region - Being a vibrant region, ensuring availability of quality broadband service for all residents and promoting broadband adoption to attract and retain rural youth and working age adults is a vision of the New Frontier planning team. The following priorities include educating and engaging people on the value of broadband; increasing availability of broadband to all communities; working with telecommunications providers and other stakeholders to ensure that redundancy and reliability are available; exploring how businesses and non-profits can better utilize broadband technology; and providing education to farmers, ranchers and ag businesses.
4. Southwest Region - Increasing the understanding and recognizing the importance of the benefits of broadband use for businesses and the residents is the focus of the Southwest regional planning team. Three priority areas are digital literacy and adoption, economic development and local government.
5. Central Region - Understanding the benefits of broadband and encouraging individuals and businesses to use broadband is a focus of the Central region. Two priority areas are in economic development and agriculture.

6. Southeast Region - A long-term goal for this effort is to identify how broadband can be utilized as a tool to retain and return increasing numbers of the rural youth population. Two high-priority areas are agriculture and economic development.
7. Northeast Region - The Northeast planning team identified broadband as critical for economic development, as well as for retaining youth and attracting young families back to the region. Four goals were identified to address the priority areas of economic development and attraction/retention of youth and young families.
8. Omaha Region - According to the 2010 household survey, 87% of those living in Omaha indicated that they are utilizing broadband. In contrast, only 11% of the respondents in two zip codes in North Omaha are utilizing broadband. To address this difference in utilization, the focus of the Omaha region is on this underserved population. By increasing broadband implementation and utilization, the health and economic well-being of low resource families may be improved.

The regional plans were completed during Q3 2013 and featured at the Nebraska Broadband Conference during Q4 2013. *No matter the region a common vision is that all residents and businesses will have access to digital information and communication tools and the training to skillfully use.* Long term goals consistent among all regions include the attraction and retention of population – including youth retention; increase in economic development; increase in well-being/quality of life; and decrease in the digital divide – rural and urban.

The successful realization of the regional plans --- their vision and goals and the growing success of the State of Nebraska depend on access to broadband services by all geographic areas. Currently, access varies by area and community.

Next Steps: The [regional plans](http://broadband.nebraska.gov) are available at broadband.nebraska.gov. The planning process included input from many people across Nebraska and influenced the statewide plan. The University of Nebraska and NITC Community Council are exploring how to reach more communities in their planning efforts. NU Extension will be working with two communities in the USDA SET program that explores broadband from a regional perspective. In addition, a NU Extension program, Entrepreneurial Communities Activation Process (ECAP), identifies digital connectedness as one of the 8 characteristics of an entrepreneurial community. Communities that have participated in this process have moved forward with creating community Wi-Fi or exploring how to get higher speed internet to their community.



Community Planning - North/South Omaha. North and south Omaha were identified as underserved regions/areas through the survey of Nebraska households. AIM and the Omaha metro region have combined efforts to address broadband adoption and utilization in the Omaha metro region. The goals outlined for North/South Omaha were highlighted under the Omaha region above and are included in this section. The Engaging People, Linking the World Broadband Planning Workbook was translated into Spanish to meet needs of this specific population.

According to the 2010 household survey, 87% of those living in Omaha indicated that they are utilizing broadband. In contrast, only 11% of the respondents in two zip codes in North Omaha are utilizing broadband. To address this difference in utilization, the focus of the Omaha region is

on this underserved population. By increasing broadband implementation and utilization, the health and economic well-being of low resource families may be improved.

Engaging organizations that work with the underserved area was one approach. Out of this effort, the technical assistance effort that worked with the Latino businesses emerged.

Next Steps: The organizations working with the Latino businesses continue to move forward. Additional efforts are being explored.

Community Planning - Cultural and Unserved Communities. A cultural coach also worked with cultural communities that are unserved, specifically, the tribal lands. Early in the planning process, the cultural coach and steering team members met with members of the Winnebago Tribe, Santee and Omaha to begin collaboration on the project. Through these meetings, the cultural coach found, “The overall concern is with access and affordability for individual families and homes, even though some technology may be ‘available.’ Many homes do not have computers, and individuals rely mostly on cellphones/smart phones for communication and/or internet access. Some are interested in other forms of communication such as a local community radio station.” In addition key stakeholders are participating in the statewide conference. The Tribal Regional Plan reflects the efforts of the cultural coach working with the Nebraska Indian Community College (NICC).

Tribal Regional Plan

The availability, accessibility and affordability of cell phones, computers and connectivity on the tribal lands are a challenge. To address these, planning efforts have focused on working with the Nebraska Indian Community College (NICC). The college goal is to support and provide the tribal communities with increased education, healthy lifestyles and cultural awareness for at least 50% of tribal youth, students and adults. Broadband can be a tool for achieving this overall goal. Priorities/activities that will increase demand for broadband include:

- Education – Increase continuing education of tribal youth and adults utilizing broadband. Connect three tribal college community campuses with tribal college radio station via broadband and subsequently deliver education to promote healthy lifestyle activities. Expand the availability of for-credit education classes online, including journalism, media and entrepreneurship classes.
- Communication Access – Explore how to improve the challenges of availability, accessibility and affordability of cell phones, computers and getting connected via high-speed broadband. Verify technology usage, including high-speed Internet connections on tribal lands.

Statewide Plan - Under the direction of the Nebraska Information Technology Commission, planning is underway in four priority areas for the Nebraska Statewide Plan. Those priorities are:

- Digital Literacy and Adoption/Advanced Technology Training
- Broadband Availability and Affordability
- Economic Development
- Agriculture

The priority areas were those that the regions identified as the most opportunity to increase the adoption and utilization of broadband. In addition, other priority actions identified were local



Broadband in Nebraska

Current Landscape and Recommendations

government, education, health care and non-profits/helping individuals access human services online. Planning meetings were held around each of the priority areas. The plan was finalized in October 2014. The full plan can be found at

<http://broadband.nebraska.gov/about-nebraska-broadband/statewide-plan>. The plan includes information on the current landscape and suggested resources. The vision, goals and recommendations are outlined below.

Vision –

Nebraska's Broadband Vision is that every resident, business, government entity, community partner, and visitor has access to affordable broadband service and the necessary skills to effectively utilize broadband technologies, if they choose.

Goals –

- Increase household adoption of broadband
 - Over 90% of households statewide will subscribe to broadband by 2020.
 - 85% of households in rural Nebraska will subscribe to broadband by 2020.
- Increase broadband availability
 - Broadband service of 25 Mbps down will be available to 90% of households by 2020.
 - Broadband service of 1 gbps down available to 25% of households by 2020.

Recommendations

- Encourage investment in Nebraska's telecommunications infrastructure.
- Enhance the capacity of local communities to address broadband development.
- Encourage the development of a skilled IT workforce.
- Support innovation and entrepreneurship.
- Support the use of broadband technologies in businesses and agriculture.
- Support the development of libraries as community anchor institutions.
- Support the use of broadband in education and health care.
- Support the use of broadband by government and public safety entities.
- Support efforts to attract new residents and retain youth.
- Increase digital literacy and broadband access to the Internet.



A video was developed highlighting the plan and shared at the 2014 statewide broadband conference.

Next steps: The NITC Community Council is measuring and tracking the metrics outlined in the Statewide Plan. In addition, the Council is helping to encourage and explore how

to move the recommendations and goals forward. Representatives from the broadband planning team participate in the community council meetings as members.

Focus Groups. In 2013, 17 Focus Groups were held with 105 individuals participating to better understand the challenges and opportunities in the various regions of the state. Communities with adequate broadband focused on the opportunities. When broadband was not as reliable, the focus became their challenges.

The focus groups were held in most of the regions in Nebraska and helped to inform the planning process. Focus groups confirmed that broadband access has increased in the area primarily in the health industry and education. Access continues to be a challenge in many areas such as the North Central region and portions of the New Frontier region. There are companies in the region that are making great strides in making broadband available; however, other companies are lagging behind. Exploring opportunities to increase broadband by banding together will be a focus of this region.

The focus groups were well attended with representation from hospital/long term care administration, businesses, community college administration, law enforcement, internet providers, extension educators, church leaders, county commissioners, economic development coordinators and chamber of commerce leaders.

Particular focus groups were highlighted in the quarterly update. The process worked well to engage more community members in the conversation and inform the direction of the regional plans.

Next Steps: Additional focus groups are not planned at this time.

Community Sector Discussions. Community Sector conversations/discussions were identified in the grant to further advance adoption of technology in specific industries such as business and entrepreneurs, chambers of commerce, agriculture and the health industry. The NITC eHealth Council has facilitated conversations with the health industry to move the adoption of broadband/technology forward. Through the broadband conference, health efforts were highlighted; however, the decision was made not to focus in this area. The initiative received feedback through the NeATA (Nebraska Agriculture Technology Association) and the broadband plan was presented at the 2014 conference. Within the grant, there have been numerous opportunities to focus on economic development. Libraries have become the place many unserved go to use broadband. Increasingly, libraries are also asked basic technology questions. The opportunity to work with the Nebraska Library Commission on the training project emerged during 2014 and was the focus of community sector efforts.

The timing was right to launch this effort. Over the last four years, the Nebraska Library Commission enhanced broadband capabilities through funding support from the Gates Foundation and BTOP. In 2015, the commission plans to launch the "Library EDGE" and the Library Commission will be launching a new on-line curriculum in January. The Nebraska Broadband Initiative was in communication with the Library Commission throughout the grant and the opportunity emerged to work together to develop a train-the-trainer program.



An assessment was designed to determine the readiness of the librarians. The assessment, conducted by the Broadband Initiative, found that librarians were not confident in meeting patron's needs and many did not have basic skills. This confirmed the Nebraska Library Commission's opinion that 60% of library staff statewide did not have basic tele-literacy skills. In addition, over 200 of the staff do not

have an email account and others only answer email weekly or monthly. The challenge became how to reach librarians that have not adopted the use of technology and broadband applications when libraries are increasingly becoming the go-to place for questions regarding technology. The program focused on building the confidence of librarians who have not adopted technology in answering patron questions. The goals of this effort were to:

- Increase librarian skills and confidence in answering patrons' questions regarding information technology and broadband.
- Increase librarians understanding of how information technology has changed the role of libraries in their community and with businesses.
- Build librarians knowledge and readiness to move to Gates Library Edge program.

A train the trainer approach was utilized in multi-locations across the state with Extension Educators and Nebraska Library Commission staff team teaching reached nearly 250 librarians in the fall of 2014. The assessment indicated a beginning and advanced training was needed on a variety of

Technology for Librarians 101

These sessions will focus on key elements of operation and usage of computer software and broadband technology tools. The sessions will be led by Extension Educators and representatives of the Nebraska Library Commission. We invite you to share this information, especially the linked content and materials.

topics and a hands-on approach would be best to learn the tele-literacy skills. The content for the basic training was based off the Mississippi State University Tech Academy framework and created by Nebraska Extension. Extension Educators and the Nebraska Library Commission Staff created the advanced training. As a result of the training, participants are planning on using Excel more in their work. Many participants planned to increase their security following the training (changing passwords, updating virus protection, etc.). Others indicated they plan to create Facebook pages or websites for their libraries following the training. Still others are planning trainings for patrons. Some key findings of the evaluation include:

- 94% of participants said their knowledge of how to perform basic Excel spreadsheet functions increased a lot (44%) or somewhat (54%).
- 95% of participants said their ability to assist customers in using Excel functions increased a lot (45%) or somewhat (50%).
- 85% of participants said their knowledge of searching for information increased a lot (36%) or somewhat (49%).
- 86% of participants said their knowledge of Cloud applications increased a lot (43%) or somewhat (43%).

These testimonials support the overall evaluation:

"The training gave me the opportunity to share and troubleshoot technology frustrations. I learned tips in order to give patrons better access to the Internet and the information they need."

"I have been trying to use Excel worksheets ... but did not know how to put in formulas. This class will help a lot in accomplishing a more organized record of events, updates, budget, etc."

The library training materials are available at <http://broadband.nebraska.gov/links-resources/nebraska-library-commission-training>.

Next Steps: The Broadband Initiative is exploring how to continue offering train-the-trainer sessions with the Nebraska Library Commission. There is an interest from the libraries. The librarians have a regularly scheduled webinar that may be one approach that is used for training.