

CONNECTING LINCOLN COUNTY



1/30/2018

Lincoln County Broadband Assessment



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LINCOLN COUNTY BROADBAND ASSESSMENT

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Introduction

Broadband is a necessity. Broadband increases the productivity of businesses, enriches education, expands access to health services, supports civic engagement, and drives innovation.

Affordable, reliable access to high-speed broadband is critical to economic growth and competitiveness. Broadband gaps and digital divides cause businesses and families to relocate and limits opportunities. Broadband connectivity and digital proficiencies are critical to community development and sustainability.

Recognizing the importance of connectivity, the Lincoln County Broadband Planning Team accepted an invitation to participate in a national pilot project to test a new online assessment tool. The team’s goal was to use the assessment to update their 2014 broadband study by establishing the current state of broadband in the county and identifying opportunities for improvements.

This report includes the team’s responses to the BroadbandUSA Connectivity Assessment Tool, a tool developed by the National Telecommunications and Information Administration. The assessment scope combines national data with local insights across a range of topics related to broadband infrastructure and assets, adoption and skills, and community context and policies. This is a living document which will be changed and updated to reflect evolving priorities, plans, and progress.

COMMUNITY CONNECTIVITY FRAMEWORK

The assessment is based on a comprehensive planning framework known as the community connectivity framework, which includes:

- Community— Leadership and Context
- Access — Broadband Infrastructure and Availability
- Adoption — Digital Inclusion and Workforce Skills

The framework, which includes 12 modules and over 150 detailed questions, is based on analysis and integration of nearly a dozen major broadband measurement tools and an NTIA-led co-design process that engaged over 800 people and organizations.

Each assessment module aims to address a fundamental question related to community connectivity.



Community— Leadership and Context

- **Community Priorities:** What issues draw us to take action to improve broadband?
- **Leadership:** How is our community organized to take action and improve broadband?
- **Stakeholder Engagement:** Who are our stakeholders? Which stakeholders have interest or influence on the broadband project?
- **Policy Environment:** Are there regional or state resources or regulations that impact local planning and investment?

Access — Broadband Infrastructure and Availability

- **Broadband Access:** What wireline and fixed wireless broadband services are available in the area?
- **Mobile Access:** What cellular technology and coverage is available in the area?
- **Provider Engagement:** Are there opportunities to further strengthen partnerships with existing and new service providers?
- **Public Assets:** How do local policies support the use of public assets, enhance advanced telecommunications and serve the public good?

Adoption — Digital Inclusion and Workforce Skills

- **Adoption and Use:** Who is using the Internet? Are there digital divides?
- **Digital Inclusion:** What proactive measures are we taking to ensure digital inclusion?
- **Digital Skills:** Do programs provide an opportunity for residents to gain digital proficiencies - from basics to coding?
- **Device Ownership:** Do people have access to the devices they need to learn, create and participate?

BROADBANDUSA CONNECTIVITY ASSESSMENT TOOL

The National Telecommunications and Information Administration (NTIA) developed the BroadbandUSA Connectivity Assessment Tool (BCAT) as a tool for local leaders to assess their community connectivity and build actionable plans for improvement. The Assessment Tool localizes national data from the U.S. Census Bureau, Federal Communications Commission, and the NTIA Computer and Internet Survey and invites community stakeholders to conduct deep local assessment across the 12 modules of the Community Connectivity Framework. The report structure includes all questions from all 12 modules.

LINCOLN COUNTY BROADBAND PLANNING TEAM

Broadband Assessment Team

The members of Lincoln County's broadband assessment team:

- Margie Hall – EDC Director, Member of County Broadband Planning Team, & BCAT Project Lead. Representing economic development.
- Joyce Mings – EDC Staff in charge of Tourism & Technology & member of County Broadband Planning Team. Representing small cities.
- Rob Coffman – County Commissioner, Business Owner, & member of County Broadband Planning Team. Representing county government.
- Jamie Manchester – K-12 Technology Coordinator for Davenport School District & member of County Broadband Planning Team. Representing education.
- Rex Harder – CPA, large scale Rancher, & EDC board member. Representing the agricultural industry.
- Steve Goemmel – Davenport City Administrator, tower space contractor, & NoaNet / E-Rate customer. Representing larger cities.
- Marlon Schafer – Owner of Odessa Office Equipment, Lincoln County Internet Provider & NoaNet Contractor. Representing internet providers.

Broadband Planning Background

Lincoln County was one of several eastern Washington counties to receive high speed fiber from an American Recovery & Reinvestment Act infrastructure project in 2011 & 2012. The fiber was built to several anchor institutions in the county (libraries, medical facilities, and schools) and was made available for contract use by last mile internet service providers.

Following the fiber build, Lincoln County received a grant from the Washington State Broadband Office to form a broadband planning team that researched the state of broadband in the county and began defining ways to extend the fiber's benefits beyond anchor institutions. That 2013-14 planning project was the first step toward reaching the county's goal of providing the infrastructure necessary to support businesses and families that require broadband to live and work in Lincoln County.

This BroadbandUSA project was the next step toward achieving that goal.

SECTION 1: COMMUNITY CONTEXT

The Community Sector of the Assessment explores four major questions as indicated here and in the following sections:

- **Community Priorities:** What issues draw us to take action to improve broadband?
- **Leadership:** How is our community organized to take action and improve broadband?
- **Stakeholder Engagement:** Who are our stakeholders? Which stakeholders have interest or influence on the broadband project?
- **Policy Environment:** Are there regional or state resources or regulations that impact local planning and investment?

SECTION 1 – MODULE 1: COMMUNITY PRIORITIES

Question: Areas of Concern

Choosing from a prepared list of concerns that often motivate broadband assessment and planning and improve community connectivity, the team selected the following:

- **Broadband service is not available in all or some parts of our locality.**
- **Mobile wireless coverage is spotty/inadequate.**
- **Broadband services are unreliable and slow in small cities and on farms. Speeds don't meet needs.**
- **Better broadband is needed to attract business; work from home; support telemedicine; support local and distance learning; and drive economic development.**
- **Some broadband providers are too expensive for services offered.**
- **Lack of digital access or skills is creating an opportunity gap for some residents.**
- **Some people who need broadband cannot afford to get the services they need.**
- **We need better broadband in order to offer better government services.**
- **Our workforce needs strong digital skills to be work ready.**

Question: Community Priorities

Provided with a prepared list of community purposes, the team chose those they felt were most important:

- **Citizen Engagement**
- **Economic Development & Innovation**
- **Education & Continuous Learning**
- **Health & Wellness**
- **Public Safety**
- **Government Services**
- **Community Sustainability & Improvement**
- **Transportation**
- **Internet of Things**

Question: Community Goals and Objectives

Taking into consideration these community priorities, what are Lincoln County's broadband-supported community goals and objectives?

Team responses:

Small Cities: My highest priority goal would be to make reliable, fast and affordable broadband available to all residents in Lincoln County. This would make all residents and businesses capable of telecommuting, doing business, fulfilling orders, accessing extended living, accessing telemedicine opportunities, and many more "luxuries" that are taken for granted in high population areas. It would also make the county more attractive to future residents and businesses.

County: Provide reliable service to underserved areas.

Largest Cities: The City of Davenport would like to be able to connect other municipal buildings with high speed internet to allow for security and connection benefits between departments.

Agriculture: Create the infrastructure that will allow technologically skilled people to live in the community.

EDC: Referring to Lincoln County as the community, the EDC gives high priority to Citizen Engagement (Example: Internet access is the most effective alternative to engage in many activities such as keeping up on government regulation that affects the farm); Economic Development (Example: We lost a large employer in 2015 because they could not get the bandwidth the growing business required); Education & Continuous Learning (Example: Lincoln Co. has no post-K12 educational institutions-without online learning a majority of students must leave to learn); Health & Wellness (Example: The population is aging and we need to help them age in place - broadband communication & care coordination can help); Community Sustainability & Improvement (Example: Broadband can slow population decline by allowing telecommuters to move here); and Public Safety (Providing broadband coverage for emergency communications for law enforcement and fire fighters is a critical issue in our rural area. Broadband can provide a base platform for deploying state of the art Emergency Communications systems that would not otherwise be possible.)

Question: Assessment of Data on Broadband Use

The team was provided with state and national data on broadband use by people ages 15 and older [See Appendix Table 1] and was asked if they felt it was representative of Lincoln County.

On a scale of 1 to 7 with 1 being *Representative of Lincoln County to a large extent* and 7 being *Not at all representative of Lincoln County*, the team gave the data an aggregate rating of 4.

The team was asked if there are other key internet uses for Lincoln County residents, businesses, and institutions.

Team response:

Team representatives suggested adding Entertainment (Netflix, Amazon TV, etc.); Precision Farming; Technical Repair Support; and Marketing.

Note: In 2014 Lincoln County surveyed businesses about their Internet use. Key uses were: email, research, banking, purchasing, sales, and providing customer service. We asked how important they felt high speed Internet would be to the success of their business in five years - 65.6% said extremely important. The results of the survey can be found in Lincoln County's 2014 broadband study (See LTPT-2014 link in the Resource List at the end of this report.)

Question: Community vision

The team members were asked if they had an overall vision for their community.

Team responses:

"A region where municipalities, industry leaders, and citizens work together to capitalize on our economic strengths and opportunities, benefitting all who live, work, and play in Lincoln County."

"Diverse Industrial/Commercial growth, supplemented by safe, clean, inviting residential neighborhoods."

Question: Broadband Vision

The team members were asked if they had a vision for a broadband planning effort.

Team responses:

"The world for tomorrow is flat. Everybody needs to be connected."

"That one and all have access to decent and affordable internet service and that no business would ever move out of the area or take us out of consideration due to the lack of."

"To act as a backbone infrastructure to the improvements and growth of the City of Davenport and for other towns in Lincoln County who are planning for it."

"To build on the broadband study we produced in 2014. This assessment project is a good next step in producing that plan. The plan will delineate how we will provide the telecommunications infrastructure necessary to increase economic opportunity and improve quality of life."

Question: Importance of Broadband in Achieving Community Priorities

The team was asked to rate the importance of broadband as a means or component of achieving community priorities.

On a scale of 1 to 7 with 1 being *Not important* and 7 being *Vital*, the team's aggregate rating was 7.

Question: Broadband's Role in the Community

The Team members were asked if they had additional comments about the relationship between broadband goals and broader community goals.

Team comments:

“In today's fast paced business environment reliable high-speed broadband will benefit municipalities, county government and businesses to meet their planning goals and objectives.”

“Broadband must be affordable.”

SECTION 1 – MODULE 2: LEADERSHIP

Question: Broadband Champion

Team members were asked if there is someone in the community who they would describe as a Broadband Champion.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 5. Two leaders were identified. The City Administrator does the broadband planning for Davenport and the EDC does the broadband planning for the county.

Question: Broadband Planning Team

Team members were asked if their community has a formal or informal broadband planning team.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 4.

Note: The county formed a broadband planning team in 2014 that represented most sectors of our community. The City of Davenport also does broadband planning. The team is unaware of any other municipal broadband planning taking place. Internet service providers strategize for expansion.

Question: Needs Assessment

Team members were asked if they have ever asked residents, business leaders, nonprofits and other community stakeholders about their community connectivity needs and interests.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 4.

When asked how outreach was accomplished, responses included:

- **We track input from constituents.**
- **We have conducted community surveys or meetings to discuss community connectivity.**

Note: The County's 2014 study included surveys of anchor institutions; broadband service providers; utility providers; businesses; School District Superintendents; and regional Public Utility Districts who are middle mile providers. [See LTPT-2014 in Resource List].

Question: Broadband Plan

Team members were asked if their community had a broadband plan.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 3.

To support the question, the team was provided with a list of broadband plan scenarios. Their responses were:

- We conduct broadband assessments and planning at least every two years.
- We have done an extensive evaluation of our broadband system.

Note: The EDC plans to use this assessment as the base for a countywide broadband plan.

Question: Community Broadband Leadership

The team was asked how they would describe their community's leadership on topics related to broadband access, adoption, and use.

On a scale of 1 to 7 with 1 being *Poor* and 7 being *Extraordinary*, the team's aggregate rating was 3.

The team was asked what changes they would like to see over the next one to two years in the way that their locality is organized to improve broadband service and how to better engage providers, partners, and constituents to improve community connectivity.

Team responses:

The representative for larger cities commented that when costs come down, more will connect to our existing fiber network.

The Economic Development Council director commented that the county has been more focused on access than adoption and use. The EDC would welcome a champion for adoption and use; possibly a community college from a neighboring county. Lincoln County has no post-K12 educational opportunities other than Internet based options.

SECTION 1 – MODULE 3: STAKEHOLDER ENGAGEMENT

Question: Stakeholder Identification

Team members were asked if they had identified broadband planning project stakeholders.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 6.

The team was provided with scenarios for identifying project stakeholders and asked which apply to their locality. Responses were:

- We have a list of stakeholders.
- Stakeholder list includes representatives from a broad cross-section of our community.
- Stakeholder list includes potential contributors, partners, or vendors.

Note: The stakeholders involved in earlier broadband planning included representation from County Commissioners, PUD Commissioners, County Information Services, WA State Broadband Office, WSU Extension Program for Digital Initiatives, Lincoln County Economic Development Council, municipal government, Davenport School District, Lincoln County Public Libraries, utility providers Avista & Inland Power, and Northwest Open Access Network (NoaNet).

Question: Stakeholder Outreach

The team was asked if they have developed and implemented outreach efforts to learn from and engage stakeholders.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 5.

The team was provided with several scenarios for engaging with stakeholders and were asked to identify those that applied to their localities. Responses were:

- We have contacted many of the stakeholders on our list.
- We have advisors that provide insight and direction on broadband projects.
- Our meetings are open to the public.
- Planning documents and meeting notes are publicly available.
- Stakeholder feedback is documented.
- Project plans are regularly adjusted to reflect input from stakeholders.
- Our stakeholder plan includes regular engagement with people or groups that have concerns or may be critical of our efforts.
- Ongoing stakeholder engagement activities are tuned to each audience based on their interest and influence levels.

Note: The County's 2014 study included surveys of anchor institutions; broadband service providers; utility providers; businesses; School District Superintendents; and regional Public Utility Districts who are middle mile providers. Some of these responses refer back to that planning project. [See LTPT-2014 in Resource List.]

Question: Public-Private Partnerships

The team was asked if public-private partnerships are part of broadband planning and project implementation plans.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 4.

Note: See stakeholder list in previous question.

Question: Assessment of Stakeholder Engagement and Partnerships

The team was asked how they would describe the effectiveness of their stakeholder and partnership engagement programs.

On a scale of 1 to 7 with 1 being *Poor* and 7 being *Extraordinary*, the team's aggregate rating was 4.

If team members saw greater potential to use stakeholder and partnership engagement programs to strengthen outcomes over the next one to two years, they were asked to comment on the changes they would like to see in those efforts.

Team response:

Stakeholder engagement has improved since the NoaNet fiber build and the subsequent LTPT broadband planning project was implemented. This assessment will fuel even stronger, more informed partnerships moving forward.

SECTION 1 – MODULE 4: POLICY AND ENVIRONMENT

Question: Regulations Pertaining to Broadband

The team was asked if they were knowledgeable about state laws and regulations that pertain to broadband projects in their jurisdiction.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 4.

The team was provided with scenarios regarding laws and regulations and were asked to identify those that apply. Responses were:

- We understand the laws and regulations that restrict/guide local government broadband purchasing.
- My state has laws or regulations that restrict/guide cable franchise agreements.
- State laws or regulations on cable franchise agreements restrict local franchising authority on cable telecommunications providers.
- My state has laws or regulations that restrict/guide government investments in broadband infrastructure.
- My state has laws or regulations that put market restrictions on government broadband networks.

Team member comment: There are some interesting and not always friendly laws and rules on the books for access to public facilities, i.e. rooftops, park lands (hill or mountain tops). Nothing in the current price structure takes into account the size or revenue capabilities of the requesting party. A small entrepreneur is expected to pay the same price as a multinational communications conglomerate.

Question: State & Regional Broadband Funding

The team was asked if their state government provided planning support or funding for local broadband projects.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 2.

Note: At one time Washington State had a broadband office with a grant program to fund planning efforts. The office was closed in 2014, but a bill is currently in front of Legislators that aims to re-establish it. The Washington State Library, under the Office of the Secretary of State, often offers grants that support internet in public libraries.

The team was provided with scenarios for state government planning and funding support and asked which apply to their locality. *The responses assume that the broadband office will be re-established:*

- **We have a state broadband office.**
- **Our state conducts a statewide assessment of broadband availability.**
- **Our state maps broadband availability.**
- **The state broadband office or associated partners provides planning and/technical support for local efforts.**
- **Our state Economic Development office considers broadband a key foundation for economic growth and provides support for broadband projects.**
- **Our state has a statewide e-Rate coordinator that supports school and library e-Rate applications.**

The team members were asked if they were aware of other regional or state programs that support broadband planning or projects.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 3.

The team was asked to identify other known regional or state programs that support broadband planning or projects. Responses were:

- **University Extension offices support broadband planning and projects.**
- **Rural Development offices support broadband planning and projects.**
- **County Commissioners support broadband planning and projects.**
- **The regional Council of Governments supports broadband planning and projects.**
- **Local Economic Development Authorities support broadband planning and projects.**
- **Local cities and towns support broadband planning and projects.**

Question: Consideration of Previous Broadband Efforts

The team was asked if they had considered how previous broadband plans and projects inform current efforts.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 5.

The team was provided with scenarios for considering planning and funding support and asked to identify those that inform current efforts. Responses were:

- **Our locality produced a broadband plan some time ago.**
- **Our locality has completed broadband projects.**

- We have reviewed previous broadband plans and projects to identify accomplishments and lessons learned.
- We have reviewed previous plans and projects to identify risks and jeopardies.
- Other – Lincoln County developed a team that evaluated the current state of broadband in our county. [See LTPT-2014 in Resource List.]

Question: Assessment of Policy and Support Structure

The team members were asked how they would describe the state or regional environment supporting local broadband efforts.

On a scale of 1 to 7 with 1 being *Poor* and 7 being *Extraordinary*, the team's aggregate rating was 3.

The team was asked to identify changes they would like to see over the next one to two years in the regulatory, legal or support structure around broadband.

Team response:

The EDC would like to see the State of Washington re-establish a broadband office with a grant program. Federal grants are available, but they are restrictive regarding eligibility, are highly competitive, and often require a prohibitive financial match.

The local provider believes rules need to appropriate to risk. The small entrepreneur with few customers should not be held to the same rules as large corporations with significant staffing. It's important to foster new innovative companies. DSL is a technology from the 1960s that didn't gain popularity until innovators had access to it. Incumbents were forced to share the facilities that were often tax payer (or USF as the case may be) or otherwise publicly funded. Government facilities should be easily accessible for any legitimate business at cost based rates. If the facility is no cost or originally built for other functions, there is no need for the government to try to squeeze every penny out of a company that's spending its own money to improve the facilities available to the local residents. I would suggest that any "nailed down" infrastructure with an expected life span of say 10 years should be abandoned in place if the company ever leaves. This way the government would inherit towers, buildings etc. at no additional cost.

SECTION 2: ACCESS - INFRASTRUCTURE & AVAILABILITY

The Broadband Access sector of the Assessment explores four major questions as indicated here and in the following sections:

- **Broadband Access:** What wireline and fixed wireless broadband services are available in the area?
- **Mobile Access:** What cellular technology and coverage is available in the area?
- **Provider Engagement:** Are there opportunities to further strengthen partnerships with existing and new service providers?
- **Public Assets:** How do local policies support the use of public assets, enhance advanced telecommunications and serve the public good?

SECTION 2 – MODULE 1: BROADBAND ACCESS

Question: Local Assessment of National Data

Local realities are critical to putting together a meaningful action plan. The team was asked to evaluate Federal Communications Commission (FCC) 477 data regarding local provider speeds and technology.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team’s aggregate rating was 3.

Note: The FCC data regarding provider speeds and technology can be found in the Appendix, Tables 2,3,4 & 5.

The team was asked to explain the ways their experience with broadband availability differed from the FCC 477 data:

Team response:

The 2014 LTPT broadband planning project used data from the Washington State Broadband Office interactive map as the starting point for identifying internet providers in Lincoln County. The map identified 13 providers. By the time that study was completed, 14 *additional* providers marketing internet services to Lincoln County had been identified. That list can be found by following the LTPT-2014 link in the Resource List. In comparison, the 2016 FCC list identified only 9. Regardless of the number of providers listed, the team’s representative for the county’s smaller, more isolated communities gave this response:

“There are only two reasonably good choices and one requires line-of-site.”

Satellite is a last-choice option that is generally not considered unless those two options – the land line telecom and a fiber subcontractor with equipment within eye sight - have been eliminated.

The EDC learned from both studies that there is not always truth in advertising service areas and that services promised are not always the services delivered. The team’s independent line-of-site provider agreed that several providers are misleading when advertising their coverage area; listing the same

number of census tracts as satellite companies. Yet there are entire communities that are not accessible to their towers and the providers have no customers there. The independent provider also found the FCC data limited with a surprisingly large number of Wireless ISPs not filing the form 477. There are two from Spokane and one from Moses Lake that are not listed, plus an increasing number of "hobby" level providers that simply take a connection from someone else and then repeat that connection to other locations. The team's independent provider estimated that between 10 and 25 percent of the broadband customers in the Lincoln County market are serviced by providers that are not filing a 477.

Also noted was how many people now use cell phones for their internet access making it important to include cell phone networks when talking about wireless internet. This is true of the team's agriculture representative, who relies heavily on his phone due to the remoteness of his farm. He is not alone. With 73% of Lincoln County in agricultural production, the farms that drive Lincoln County's economy often face the fewest options and highest costs and rely heavily on cell phones.

During the assessment process the representative from the Office of the Chief Information Officer shared that anecdotally, residents of Lincoln County report that CenturyLink is unable to accept new subscriptions in some communities due to a condition called "exhaust" where the company has more potential subscribers than their local central office equipment can accommodate. Indeed, speed test data from [mLab](http://viz.measurementlab.net/location/nauswadavenport?isps=AS11398x) (<http://viz.measurementlab.net/location/nauswadavenport?isps=AS11398x>) suggests that actual download speeds experienced by CenturyLink customers in Davenport are lower than advertised speeds. Offered speeds are 4 Mbps and above, but tests indicate actual subscriber experience as low as 1.6 Mbps. The EDC office had received complaints from residents regarding the deteriorating quality of CenturyLink's service as long ago as 2016. By the time this assessment was complete that rumor had been confirmed. The EDC learned from a CenturyLink representative that the cost to replace copper phone lines with fiber is prohibitive considering the number of customers served. The representative explained that the company does not anticipate any upgrades without government subsidies or incentives.

Question: Local Consumer Broadband Priorities

The team was provided with state and national level data ranking residential consumer's broadband service priorities. The table can be found in the Appendix Table 6. Both state and national data showed the top priority to be reliability followed by a tie between affordability and speed. Knowing the data may or may not be relevant to Lincoln County, the team was asked to identify the greatest concerns of residents in their localities:

Team response:

Access: Large dark spots where access is not available remain in between populated areas.

Reliability: A team member commented that reliability is a common complaint for one provider's customers, adding that *"Speed means nothing when you have no internet."*

Speeds: End users of one provider's services feel they are stuck with service that is slow, frustrating, and incapable of supporting movies or video. Indeed, speed tests indicate inconsistency in the customer

experience with broadband service. Even if the customer's experience is due to local conditions or configurations, the unpredictability negatively affects the perception of reliability.

Regarding the state data, team members would have guessed that speeds would have been a bigger concern for our state since technology drives a good portion of western Washington's economy.

Question: Local Business Broadband Priorities

The FCC data only considered *home use* of the internet. The team was asked to provide key broadband priorities or concerns in the local business community:

Team response:

The team's independent provider finds that reliability is the top concern for business, followed by price. Customer service is becoming more important as businesses increasingly experience issues with their service. A growing number of business customers are using multiple providers along with routers that will offer auto failover. This gives customers nearly 100 percent reliability; has proven to be affordable; and is anticipated to increase in use in the future.

The team's agriculture representative reiterated that our farms, who suffer from some of the least satisfactory service options, are small businesses. In fact, the majority of rural businesses are small businesses and many have limited broadband training and resources. This can result in outsourcing to urban areas.

The team's K-12 technology education representative has seen Lincoln County businesses suffer inefficiencies from slow service.

The representative from the OCIO notes that cybersecurity has been described as a key issue affecting businesses and their willingness to spend on broadband service. The communities of Lincoln County would like to recruit new businesses to the area - not just retain the existing business community. In recruitment of new businesses (especially small and home-based business) disparity between Lincoln County and its neighbors (Grant & Spokane counties) is likely a barrier.

In 2014 the EDC surveyed local businesses about their current and future use of broadband. Thirty-two surveys were completed. The responses indicated:

- 1) Business stakeholders need to experience the opportunities that high-speed broadband can offer before they can determine how they would benefit or what they would pay; and
- 2) Business stakeholders are open to learning new skills related to broadband adoption.

Details of the survey are available by following the LTPT-2014 link in the Resources List.

Question: Local Broadband Pricing

The team was asked for information on local broadband pricing.

Team response:

The team's independent provider reports that retail broadband prices are all over the board. CenturyLink advertises as low as \$20 per month. The WISPs are mostly in the \$50 to \$70 range. Satellite service is in

the \$80 to \$120 range. Any less and the satellite service is all but unusable. Most of the independent provider's business customers pay \$50 to \$100 per month depending on the data threshold they need. Wholesale pricing also varies, but is high. The provider pays \$1,600 for 50 megs plus \$350 per connection via NoaNet, a 2012-2013 ARRA-funded fiber installation that reached underserved communities throughout Washington State. That's much lower than NoaNet's competitor for private wholesale fiber in Lincoln County, CenturyLink. In Douglas County and Grant County to the east he pays \$5.00 and \$5.50 per meg respectively. Urban neighbor Spokane County sees prices under \$3.00 per meg and the State's largest city, Seattle, sees prices closer to \$.25 per meg.

Another team member shared their CenturyLink residential charges for May 2017: \$78.23. The breakdown is \$59.95 for the "package" plus \$11.98 for broadband (HIS up to 3.0 M). The Broadband Services includes a \$9.99 router equipment fee and \$1.99 Broadband Cost Recovery Fee. The "package" is the cost of a landline connection that must be purchased to get broadband.

The team was also asked to relay their insights or concerns about broadband pricing and value in their localities.

Team response:

Team members representing agriculture, K-12 education, and smallest, most isolated cities all noted concern with experiencing few ISP choices, all perceived to charge too much for spotty & unreliable coverage. In other words, the price of plans is high considering the low quality of service they receive. It is especially frustrating for residents who live near the Grant County line, Lincoln County's neighbor to the west. Grant County PUD provides their customers with some of the fastest speeds in the nation.

The team's representative for K-12 noted that families with access to different levels of service may have a hard time affording the higher speeds. Some families can't afford even the slowest speed from the least expensive provider.

The team's local provider is concerned about price variation. "It is unclear how USF/CAF funds affect prices and it is frustrating to see so much competition out here and still have to compete against government funded competition. Under the FCC rules a provider must offer absurdly high speeds and data thresholds and offer voice services to be considered served. In nearly all of Lincoln Co. there are three cell phone companies with 3G or LTE and multiple fixed wireless companies. The FCC doesn't consider an area served properly until people can get 25/3 and 150 gigs of data. The only reason that truly stands up to those standards is TV viewing. So the FCC has set a threshold that funds the incumbent so that the consumer can have cheap entertainment. In June of 2017 out of 1070 devices on our network (including servers and large business customers with multiple PCs) the average per month usage was 29.5 gig downloaded and 5 gig uploaded. Granted, people that want to watch a lot of TV tend to use other providers. That just further illustrates the point that high data use is always about the video, not everything else."

Question: Local Assessment of Broadband Availability

The team was asked how they would rate the availability of broadband services in their locality.

On a scale of 1 to 7 with 1 being *Poor* and 7 being *Excellent*, the team's aggregate rating was 4. The scores ranged from 1 to 7 with 1 coming from the small cities representative and 7 from the independent provider. The rest of the team landed in the middle.

The team was asked what changes they would like to see in the next one to two years in the broadband services that are available to residents, businesses, and community anchor institutions in your locality.

Team response:

The EDC would like to see more residents and businesses benefitting from the ARRA funded fiber that was installed through Lincoln County in 2012, including the anchor institutions who received fiber. Greater financial support of our municipal libraries is needed before those anchor institutions can take full advantage of their ARRA fiber. This will require expanding library hours (most average only 10 hours a week); providing technical training for librarians; providing adoption resources for residents; and providing Wi-Fi access outside the libraries when closed. The EDC would also like to see greater support of the two independent providers who have contracts to access the fiber.

Being offered a choice of providers is not always enough to convince people to switch. Residents who have been with a carrier for a long time can be hesitant to leave for fear of ending up with less satisfactory service or higher costs. This is likely common in many rural areas where viable options have only recently (5 years +/-) been entering the market. Another deterrent is the necessary investment in a home antenna when switching to a line-of-sight provider, even though the investment is often recouped in less than a year.

Agriculture, small cities, and OCIO representatives mention the importance of farms having faster, more reliable internet. Farmers, ranchers, and their industry support services depend on GPS and other digital resources more and more. Lincoln County needs to assure that the crop and livestock producers so important to the economy are able to utilize technological advancements. More hot spots are needed from wireless vendors. One farmer in our county is currently participating in a white space pilot program with Microsoft. We hope it will result in new viable options for farms.

Looking at the near future, the team's local provider points out, "We always want higher speeds, better reliability, and lower prices. Realistically, I think speed and reliability are pretty good at the wholesale level." He anticipates prices will come down as fiber investments are paid off over time. At the consumer level, speeds and reliability will continue to go up as equipment and wholesale services get better and cheaper.

In addition to more reliable internet service on farms, the team's OCIO rep would like to see:

- 1) at least 1 gbps in all schools with more than 100 students;**
- 2) nobody gets a "no" when they call to order internet (refer to competitors or publish a sales engineering case that would work (term/volume/price commitment)).**

Lastly, he makes this suggestion, “Six months of ‘Business Class’ service for \$60 for any current subscriber - let people try a higher level of service and see if they like it.”

The team’s K-12 rep would like to see more ISP’s, competitive pricing, and higher speeds. She emphasizes the disparity of service provision in Lincoln County. One customer can get 8.0 Mbps while another a quarter mile away gets 1.5 Mbps, yet both pay the same amount. The K-12 rep would also like to see more wireless hotspots in our towns to provide options for residents who either can’t afford or can’t get access from home.

SECTION 2 – MODULE 2: Mobile Access

Question: Mobile Coverage in Your Area

The team was asked to review the following resources:

Note: All facilities-based broadband providers are required to file data with the FCC twice a year (Form 477) on where they offer Internet access service at speeds exceeding 200 kbps in at least one direction. Mobile providers file maps of their coverage areas for each broadband technology (e.g., 2G, 3G, 4G Non-LTE, 4G LTE).

- Learn more about [477 data resources](#)
- Nation map for [LTE Coverage by Number of Providers](#)
- National map for [Mobile Wireless 3G or Better Coverage by Number of Providers](#)
- National map for [LTE Coverage](#)
- National map for [Mobile Wireless Coverage](#)
- Download the [latest data for your state](#)
- The FCC’s [Mobile Wireless Competition Report](#) provides an annual snapshot of the mobile wireless coverage and technology.
- [Nationwide coverage maps](#) are available at the FCC.
- [Nationwide coverage maps](#) are available at the FCC.

The team was asked if they felt that this information accurately reflects cellular coverage in their locality.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team’s aggregate rating was 4.

The team was asked to highlight the key differences between their experience of cellular coverage and the reported data.

Team responses:

Note: The Mobile Coverage module was not working when the tool was first released so some of the team members were unable to access the resources or respond to the questions.

The rep for small cities was unable to access the resources, but provided a comment: “I don't know what reported data this is referring to. However, while there are many options for cellular service in our town, not one of them is reliable. In Almira, Inland Cellular is probably your best chance of not having to find the best spot and stand on one foot with foil on your head. However, if you drive out of town a few miles, there is a great chance of calls dropping, no broadband etc. Very few people in my circle have kept landlines and I miss being able to have an uninterrupted conversation. It seems like we are going backwards in phone technology.”

Another team member commented, “Local terrain blocks signals and the data needed today is greater than when assessed. You need to understand how fast chip processing and data collection have accelerated.”

Question: Commentary on Cellular Price/Value

The team was asked to comment on the affordability and value of wireless services available to local residents and businesses in their locality.

Team response:

The agriculture rep commented on how quickly the market changes and how often provider contracts lock users into high cost plans.

The county rep feels price and value are standard for the region.

The rep for K-12 reiterated that cell phone service is spotty. Her locality can only get Inland Cellular or AT&T. Inland Cellular has a more limited plan, so most people go with AT&T. “Cell phone plans are expensive and we often have many lost days of service. Sometimes we experience this every month. There are not enough towers to support the county's needs.”

Question: Assessment of Mobile Broadband Availability

Note: The Mobile Coverage module was not working when the tool was first released so some of the team members were unable to respond to the questions.

The team was asked to describe the availability of mobile broadband (data) services in their community.

On a scale of 1 to 7 with 1 being *Poor* and 7 being *Excellent*, the team's aggregate rating was 3.

The team was asked how mobile access and associated gaps in service impact their community and what changes they would like to see in cellular services in their region over the next one to two years.

Team response:

The agriculture rep commented that gaps in availability make it hard for businesses to plan for the future. It seems there could be more community based broadband access for limited skills/income people. Access to job opportunities and learning needed skills are critical.

The K-12 rep commented that better coverage is needed in the remote areas of the county and feels

more providers are needed. Sprint and Verizon will not provide services to some of our zip codes. Those that do provide services do not have enough towers to support their customer's needs.

SECTION 2 – MODULE 3: PROVIDER ENGAGEMENT

Team members were asked if they were actively engaged with service providers to understand their current and future plans, aggregate and articulate demand, and enable deployment.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 3.

When provided with a list of engagement scenarios, responses included:

- **We know the service providers that operate in our locality.**
- **We cultivate strong relationships with providers.**
- **Other: We often get reports from providers *after* they have completed upgrades to their service areas.**

Question: Local Assessment of Provider Coverage Data

Two tables of FCC data – one listing ISPs serving the local residential market and one for the business market – were provided to the team members. (See the Appendix Tables 7 & 8.) The team was asked if they felt the tables represent a comprehensive and accurate view of the service provider coverage in their area.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 4.

Question: Open Communications with ISPs

The team was asked if there was open and frequent communications between local broadband champions and service providers in their area.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 4.

The team was provided with scenarios for gaging communication between local broadband champions and service providers in their area. Responses were:

- **We have reviewed the list of residential/business providers that serve our locality.**
- **We have met with some of the residential/business providers that serve our locality at least once.**
- **We have regular open communication with at least one residential/business provider that serves our locality.**

Team response:

Three team members responded to Provider Engagement questions – a county government rep, a city government rep, and the director of the EDC. All three have reviewed the list of residential and business providers serving the locality and all three have met with at least some of them. The county government rep and the EDC director participated in the county’s 2014 Local Technology Planning Team grant and continue to have open communication with some providers of residential and business service. The 2014 grant project also involved a survey of providers with questions about coverage areas, services provided, and challenges to service provision. (See the LTPT-2014 link in the Resources List.)

Question: Demand Aggregation

The team was asked if local leaders assess current and future broadband needs and communicate those needs to engaged providers.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team’s aggregate rating was 2.

The team was provided with criteria to gage the level at which leaders assess current and future broadband needs and communicate those needs to engaged providers. Responses were:

- **We have some awareness of the current and future needs for broadband connectivity in our business community.**
- **We have documented the current and future broadband needs of area businesses.**
- **We have some awareness of the current and future needs for broadband connectivity in our community anchor institutions.**
- **We have documented the current and future broadband needs of community anchor institutions.**
- **We have some awareness of the current and future needs for broadband connectivity among residents and people considering relocating to our community.**

Question: ISP Deployment Plans and Challenges

The team was asked if local leaders engage providers to understand deployment plans, deployment projections, and challenges.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team’s aggregate rating was 3.

The team was provided with criteria to gage the level to which local leaders engage providers to understand deployment plans, deployment projections, and challenges.

Responses were:

- **Our leadership has conveyed what services, speeds, and coverage is needed in this locality.**
- **Residential providers have shared deployment plans and timelines.**
- **Business providers have shared deployment plans and timelines.**

- For providers in our locality that receive e-Rate funding, we understand service contracts and upgrade plans.
- For providers in our locality that receive Connect America Funding, we understand their deployment commitments and timeframes.

Additional Comments:

Lincoln County has two ISPs that serve 95% (estimate) of the county. One is local and we are in frequent communication. The other is a multi-state land line ISP that recently stopped accepting new broadband customers.

Lincoln County requires fiber-related projects to seek right-of-way approval before building. Providers work with local governments to lease antennae space on municipal water towers. To the best of our knowledge only one provider has received CAF funds. Initially they were undecided as to whether or not to accept the funds because of the related expense to them. They did eventually accept the funds and we learned where they would be invested when the provider was ready to build. The rep for larger cities utilizes e-Rate for the NoaNet fiber connection at the local library.

Question: Contract Management

The team was asked if government leaders manage contracts and leaseholds to ensure that those agreements continue to meet the needs and interests of the public.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 1.

The Larger Cities rep commented that their leases and agreements with providers include clearly defined public benefits.

Question: Assessment of Service Provider Engagement

The team was asked to rate the effectiveness of communications, agreements, and partnerships with their service providers.

On a scale of 1 to 7 with 1 being *Poor* and 7 being *Extraordinary*, the team's aggregate rating was 3.

The team was asked what changes they would you like to see in the next one to two years in the way that their locality works with service providers.

Team response:

The EDC would like to see support for expanding access to NoaNet fiber, both from contracting ISPs expanding their services and from residents and businesses utilizing their services. Lincoln County's largest provider and only land line telecomm has recently begun to turn down new broadband customers. This presents an opportunity for NoaNet ISP's to grow their markets, however both are line-of-sight providers so are not an option for everyone.

When the EDC reached out to a representative of the land line telecomm we were told that the cost to replace their copper phone wire with fiber is prohibitive considering the number of customers served. The representative explained that the company does not anticipate any upgrades without government subsidies or incentives. (Oct. 2017) It is important to learn what their strategy is moving forward.

The Larger Cities rep would like to develop and maintain an updated list of services to provide to current and future residents and businesses.

SECTION 2 – MODULE 4: PUBLIC ASSETS

Question: Asset Inventory

The government-related team members were asked if they maintain a publicly-accessible inventory of assets. Given a list of criteria specific to publicly-accessible assets, the responses were:

- **Our community has identified the types of public assets that could be used for advanced telecommunications.**
- **Our community maintains an asset inventory - a directory of public assets that could be used for advanced telecommunications.**
- **Providers have told us in the past that location of their fiber is proprietary.**
- **Other: Our asset inventory includes information on asset type, geo-location, and ownership, but is limited to only the NoaNet line.**

Question: Policies for Use of Public Assets

The team was provided with scenarios for developing and managing policies and regulations that facilitate the use of public assets.

Only the larger cities team member responded:

- **Our agency has well-defined policies and procedures that regulate the use of public assets.**
- **Policies have been updated to include considerations for siting wireless infrastructure such as antennas, towers, small cells and outdoor Distributed Antenna Systems.**

Question: Policies about Rights-of-Ways

The team was asked if policies and regulations streamline access to public rights-of-way and support the public interest.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team's aggregate rating was 3.

The government-related team members were provided with scenarios for policy and regulation streamlining access to public rights-of-way in support of the public interest. The responses were:

- **Our community has identified the regulatory or policy jurisdictions for rights-of-way in our locality.**
- **Our agency has identified the state, county, federal, tribal, commercial, and other regulations that apply to rights-of-way in our locality.**
- **For rights-of-way within our management scope, our agency has well-defined policies and procedures that regulate use.**

- **Our jurisdiction has implemented a dig once policy that requires public notice for all trenching or major construction.**
- **Our government actively works to coordinate construction interests to facilitate telecommunications infrastructure deployment as part of construction projects.**
- **We are aware of the rights-of-way regulations on county and state roads and lands in our jurisdiction. Information is accessible in our offices and websites.**
- **We are aware of the rights-of-way regulations on federal roads and lands in our jurisdiction. Information is accessible in our offices and websites.**
- **Policies and procedures that regulate rights-of-way proactively consider requirements for advanced wireless in communities.**

Question: Contract Management

The government-related team members were provided with scenarios for managing contracts and leaseholds to ensure that those agreements continue to meet the needs and interests of the public. Responses were:

- **Leases and agreements with providers are a matter of public record.**
- **Leases and agreements with providers include clearly defined public benefits.**

Question: Use of Government Telecom Infrastructure

The government-related team members were provided with scenarios for leveraging government telecommunication infrastructure to improve broadband services to government agencies, institutions, businesses, and consumers. No scenarios applied.

Question: Public Wi-Fi

Team members were provided with scenarios for providing access to free public Wi-Fi. Responses were:

- **Our community offers free wireless access at public libraries.**
- **Our community offers free wireless access at government buildings [only a few].**
- **We have a fluid directory of Wi-Fi coverage in our geography.**
- **Other: The City of Davenport provides access to free Wi-Fi at the Davenport Municipal Airport.**

Question: Local Assessment of Public Asset Use

The team was asked how they would describe the effectiveness of local policies that promote the use of public assets, enhance telecommunications competition, and serve the public good.

On a scale of 1 to 7 with 1 being *Poor* and 7 being *Excellent*, the team's aggregate rating was a 2.

The team was asked what changes they would like to see in the next one to two years in the way that localities manage public assets to advance broadband and community connectivity.

Team response:

While some saw no need for change, the local ISP representative had the following comment:

Public lands and/or facilities are often very hard to deal with, especially for smaller entrepreneurial companies. As an example I have a customer that's got a few trees (less than a dozen I think) in the way in order for him to get perfect line of site to the broadcast site in his area. Nearly all of those trees are on state ground. Not only is he unwilling to cut down an insignificant number of trees (should be specifically allowed to cut x number of trees for fire break, falling safety zone, cell phone coverage, road encroachment or whatever) he's not even willing to ask the state if it would be OK. I can't say if the state would allow the cutting of a few trees in a case like this or not. It's pretty sad when people are so convinced that they'll be told no that the public won't even waste the time to ask. The state should be seen as a supportive friend of the voters, not an opponent who's not approachable or likely to be helpful.

SECTION 3: ADOPTION — INCLUSION & SKILLS

The Adoption Sector of the Assessment explores four major questions as indicated here and in the following sections:

- Adoption and Use: Who is using the Internet? Are there digital divides?
- Digital Inclusion: What proactive measures are we taking to ensure digital inclusion?
- Digital Skills: Do programs provide an opportunity for residents to gain digital proficiencies - from basics to coding?
- Device Ownership: Do people have access to the devices they need to learn, create and participate?

SECTION 3 – MODULE 1: ADOPTION AND USE

Question: Local Assessment of National Data

Team members were provided with national and state level data specific to internet use by adults and school-aged children (see Appendix Tables 9 & 10). The team was asked if they felt the national and state figures squared with their experience of local adoption levels.

On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the team’s aggregate rating was a 4.

Question: Local Commentary on Broadband Adoption and Use

The team was asked to comment on how their experience or data on broadband adoption and use in their localities differed from the national and state level data.

Team response:

The team’s agriculture rep noted that state and national level data is probably skewed because urban areas have far more users and more active users than rural areas.

Both the EDC and the rep for small cities questioned the percentage of people in WA that use the internet at work. With companies like Boeing, Microsoft, and Amazon in the top five employers, 35.9% sounded low.

Both the EDC and the rep for small cities also questioned the percentage of school age children using the internet at school, with 49.3% sounding low. The small cities rep commented on her home town, which has a population of 275:

“In Almira, all of the children use the internet at school and most do at home and have a smart phone. From 6th grade on, all homework is done on the internet. I think most jobs include broadband, also. Even most clerks and servers use a point of sale system. Farmers are using broadband. No longer is the desk job the only place where internet is part of the job.”

The team was asked if they had local data. Lincoln County businesses were surveyed for access and use as part of the county’s 2014 broadband study. (See 2014 LTPT in the Resource List.)

Question: Local Commentary on Broadband Adoption/Divides

For this question, the team was provided with two maps. The first showed Home Broadband Subscription Rates (i.e. adoption rates) by Census Tract *based on information submitted to the FCC* by Internet Service Providers. The second showed Households in Poverty (i.e. non-adopters) based on the 2016 U.S. Census Bureau American Communities Survey. The data in the tables that followed (Appendix Tables 11, 12 & 13) is based on trends at the state and national levels, and may or may not be relevant to Lincoln County. The team was asked to indicate which trends – and gaps – are of the greatest concern to their localities.

Team response:

Regarding the first map, the EDC believes countywide adoption is more consistent than indicated and reminds the NTIA that data based on FCC reporting for Lincoln County does not reflect all providers. Regarding the second map, the EDC would agree that 10-20% is accurate. According to 2016 U.S. Census data, the poverty rate for Lincoln County was 12.5% compared to the state level of 11.3%. Regarding adoption, the 37.8% of adult citizens who "don't need the Internet" in the first table must be the same 65+ group that "don't use the Internet" in the second table. It is increasingly difficult to go through day to day life without needing to access the Internet for something - a phone number, a required farm form, to submit a resume for a job are examples. Everyone "needs the Internet." They likely have help from family, friends or some other resource when they have no alternative to going online.

Of greatest concern for the agriculture rep is the lack of education and affordable access for the lower income community. It is moving in the wrong direction.

Note: In 2014 the EDC surveyed School District Superintendents about student access at home, online education use, and youth outmigration. (See LTPT-2014 in the Resource List.)

The team was asked what changes they would like to see in the next one to two years regarding broadband use and to describe how broadband adoption levels and associated divides impact their communities.

Team response:

The definition of adoption in the BCAT user guide is "The use of broadband in places where it is available, measured as the percentage of households that use broadband in such areas."

The EDC pointed out that the county's libraries are the primary broadband resource outside of homes. Library access is free, but in most libraries it is limited to the hours they are open - 10 hrs. a week on average. The number of computers available in the libraries is low and units are often second hand. Increased support of local libraries would enable a greater level of access by those who do not have internet at home.

The agriculture rep commented that Lincoln County needs robust community based access; similar to the 2-hour free access at airports. Also, affordable subscriptions that do not count access to learning sites.

SECTION 3 – MODULE 2: DIGITAL INCLUSION

Question: Outreach to Under-Served Populations

The team was asked if any organizations or groups in their communities regularly identify, seek out, and understand the needs of under-served individuals/populations.

The team was aware of no organizations or groups who identify, seek out, and understand the needs of under-served adults. The public school system would be the only group that would understand the needs of the county's under-served youth.

Question: Digital Literacy Training

The team was asked if digital literacy training and support are available to residents – either as a stand-alone service or as part of other programs, such as those for education, housing, justice, or workforce development.

Team response:

The team was not aware of any formal digital literacy training taking place. The EDC commented that while five libraries in Lincoln County did receive NoaNet fiber connections in 2012, the librarians did not receive training in digital literacy. Thus there are libraries where there is no 'trainer' available to assist with digital literacy.

Question: Broadband Affordability for Low-Income Households

The team was provided with a list of scenarios for promoting discount or subsidy programs that lower the cost of broadband access for low-incomes individuals and households. The responses were:

- **Our community works to ensure that broadband access services including high-quality Wi-Fi networks are available for residents.**

Comment: Most of our under-funded public libraries turn off their free Wi-Fi at night due to service cost.

The only program that is locally advertised that ensures community members can access affordable internet services is through our only land line telephone/internet provider CenturyLink. They participate in the Lifeline program to make telephone or broadband service more affordable to eligible low-income individuals and families. Their ad states that eligible subscribers can qualify for "reliable home high-speed Internet service up to 1.5Mbps for \$9.95 per month for the first 12 months of service." Up to 1.5Mbps speeds impede personal or community-wide outcomes in my opinion.

Links to CenturyLink's Lifeline program are in the Resource List.

Question: Access to Devices for Low-Income Individuals

The team was asked if their communities take affirmative steps to make sure that low-income individuals have access to appropriate computing devices. Responses from a list of scenarios were:

- **There are physical spaces in our community that provide open access to computers and the Internet. This may include public libraries, educational institutions, government offices, or other community or business centers.**
- **Our community participates in a local or national computer refurbishing program - by encouraging that computing devices be recycled and refurbished.**
- **Other: Lincoln County provides free collection of computing devices for recycling at the solid waste transfer station.**

Question: Accessibility for People with Disabilities

The team was asked if their communities take affirmative steps to ensure that websites and technology programs are accessible to people with disabilities.

Public facilities are ADA-compliant.

Question: Sustainable Funding for Inclusion

The team was asked if their communities have sustainable funding to promote digital inclusion.

Outside of the municipal funding of public library internet and computers, there is no funding for digital inclusion that the team is aware of. One could question if even library funding is sustainable in smaller communities.

Question: Assessment of Community Digital Inclusion Programs

The team was asked what changes they would like to see over the next one to two years in the way that their localities promote digital inclusion and equity and whether or not they feel that uneven digital participation impedes personal or community-wide outcomes.

Team response:

The team is not aware of any formal Digital Inclusion Programming in Lincoln County.

The most likely place for programming to take place would be the public libraries. Training for our librarians would be a step toward promoting inclusion and equity. They need to be trained before they can effectively train others. We would like to see our libraries open more than 10 hours a week, possibly through a partnership with school libraries. Some of our libraries have antiquated computers; some have a single computer, most have two. Library service contracts do not include unlimited access. Library Wi-Fi is free to the public, but it is not 24/7. Only one library leaves their wireless connection on when closed.

SECTION 3 – MODULE 3: DIGITAL SKILLS

Question: Digital Literacy Training and Support

The team was asked if their communities provide digital literacy training and support.

Online resources such as Microsoft Academy are available and can be accessed at home or at public libraries. Public schools provide resources for students. Beyond that, the team is aware of no formal Digital Literacy Training and Support programming.

Question: Training in Job Search and Workforce Skills

The team was asked if their communities provide training in digital job search and work competencies such as research and information literacy, productivity software, and the professional use of social media.

The EDC has talked with librarians about learning how to use job search sites so that they can help residents and the EDC has hosted free public workshops for businesses and start-ups to develop a website, get found on Google, or promote their products or services online through social media. They are unaware of any other training being offered.

Note: Lincoln County has no brick & mortar post-K12 facilities.

Question: Training in Collaboration and Content Creation

The team was asked if their communities provide opportunities for students and adults to learn the skills and responsibilities necessary to collaborate and create content online.

The team is not aware of any structured training for collaborating and creating online content for adults. There is some training in the public schools, however the team is unaware of the extent of that training. Microsoft Academy offers access to free courses.

Question: Training in Coding and Computer Science

The team was asked if students and adults have opportunities to learn coding skills, computer science, application development, and related skills.

The team is not aware of any structured training for coding skills, computer science, application development, and related skills for adults. There is some training in the public schools, however the team is unaware of the extent of that training. Microsoft Academy offers access to free courses.

Question: Training in Privacy and Online Safety

The team was asked if their communities affirmatively address privacy, security, and online safety.

The team is not aware of any structured training in Privacy and Online Safety. There may be training in the public schools, however the team is unaware of any.

Question: Assessment on Local Information and Technology Skills

The team was asked if Lincoln County is building an information savvy and tech-aware culture.

On a scale of 1 to 7 with 1 being *Initial stages* and 7 being *Info and tech savvy*, the team's aggregate rating was a 1.

The team was asked what changes they would like to see over the next one to two years in the way that their localities invest in creating/strengthening digital skills.

Team response:

Rural Lincoln County does not have a workforce development office; an employment security office; a Small Business Development Center; or a community college - the resources found in urban area that typically provide IT training. Talks are currently taking place for Community Colleges of Spokane to offer adult GED classes in county. Ideally, we would like to see that expand to other adult literacy training, including digital.

SECTION 3 – MODULE 4: DEVICE OWNERSHIP

Question: Device Ownership

The team was provided with a table that gave state and national level data on ownership of internet-enabled devices that Americans have in their homes (see Appendix Table 14). The team was asked if the data squares with their experience of local device ownership levels.

The local provider is likely to have the most accurate picture of device ownership in Lincoln County. On a scale of 1 to 7 with 1 being *Not at all* and 7 being *To a large extent*, the local provider rated the data a 4.

Question: Device Access for Low-Income Individuals

The team was asked if their communities take affirmative steps to make sure that low-income individuals have access to appropriate computing devices.

Low-income individuals have access to computers at public libraries. Students have access to computers and tablets in the public schools. The team does not know if other devices are available.

ACTION PLAN FOR LINCOLN COUNTY

Summary of pain points specific to Lincoln County

1. Lincoln County has a population of less than 5 people per square mile.
2. There are limited choices for customers in the unincorporated areas.
3. Service speeds are low, even in Lincoln County's urban areas.
4. Low speed connections make it difficult for municipalities to link buildings and departments.
5. Some outlying areas served by copper phone lines are over-allocated, leaving customers choked out.

Note: The same copper phone lines are now preventing one provider from accepting new broadband customers.

6. Pain points affect more than residents and brick-and-mortar businesses. They jeopardize valuable solutions for rural areas including home-based businesses; telecommuting; farmers using technology for agricultural purposes; and online learning.
7. Mobile access faces similar problems to broadband.

Next Steps

1. Improve Broadband Availability: Explore white space; utility partnerships; increase hot spots in communities and along highways; derive more value from ARRA-funded fiber.
2. Use of Public Assets: How can we streamline access to rights of way, especially on state lands, and tower access?
3. Digital Skills: Are there opportunities to increase access to digital skills training for adults and businesses? At libraries? Elsewhere? Who could lead?
4. NTIA Support: Don Williams is available for Technical Assistance.
5. Farming and Precision Ag: Improve understanding and support for precision ag for both farmers and Olympia. How much bandwidth is needed for precision ag? *"If our farms fall behind, our county falls behind."*
6. State Support: Connect with the State broadband office and grant program if re-established by legislators.
7. Broadband data collection and accuracy: Need way to get local ground truth on broadband availability – house by house. Consider 'boots on the ground' crowd source model. House to house survey. Consider local map.

RESOURCE LIST

LTPT-2014 Lincoln County's 2014 Local Technology Planning Team Report

<http://lincolnedc.org/businessresources/broadband/>

<http://lincolnedc.org/wp-content/uploads/2013/07/Lincoln-County-Broadband-Infrastructure-Map.pdf>

City of Davenport

<http://www.davenportwa.us/%20%20>

Legislation regarding Public Utility Districts and the provision of wholesale broadband

<https://app.leg.wa.gov/rcw/default.aspx?cite=54.16.330>

Harrington Millennials Make Broadband A Priority. Story of an innovative project that brought high speed broadband to the business district of a Lincoln County WA town with a population of 450.

<http://lincolnedc.org/businessresources/broadband/>

2011 Annual Report on Broadband in Washington (Produced by the Washington State Broadband Office)

https://app.leg.wa.gov/ReportsToTheLegislature/Home/GetPDF?fileName=2011BBAnnualRptFINAL_9fb9071e-b3b9-4843-a318-a3ace0234926.pdf

2012 Annual Report on Broadband in Washington (Produced by the Washington State Broadband Office)

https://app.leg.wa.gov/ReportsToTheLegislature/Home/GetPDF?fileName=Broadband-2012-Report-FINAL_565a117f-e5ee-49d0-85d2-8e8398d85c18.pdf

WA State broadband data (from old state broadband office). Privacy/Data office will post new data here.

<https://data.wa.gov/browse?tags=broadband>

<http://privacy.wa.gov/broadband-maps%20%20https://data.wa.gov/browse?tags=broadband>

Open source for internet service measurement

<http://viz.measurementlab.net/location/nauswadavenport?isps=AS11398x%20>

The links included in an advertisement for CenturyLink's Lifeline program:

<http://www.centurylink.com/lifeline%20and%20www.centurylink.com/internetbasics%20and%20www.lifelinesupport.org/lis/change-my-company.aspx>

LINCOLN COUNTY BROADBAND MAP

