Transportation & Telecommunications Committee
Chair Senator Annette Dubas, district 34
LR 343 Report

Resolution

http://www.nebraskalegislature.gov/FloorDocs/Current/PDF/Intro/LR343.pdf

ONE HUNDRED THIRD LEGISLATURE
FIRST SESSION
LEGISLATIVE RESOLUTION 343
Introduced by Dubas, 34; Brasch, 16; Hadley, 37; McCoy, 39; Price, 3; Watermeier, 1.

PURPOSE: To study the existing policy to supplement federal universal service support mechanisms and ensure that all Nebraskans, without regard to their location, have comparable accessibility to telecommunications services at affordable prices, recognizing the importance of broadband access for the state's economy to remain competitive, and to review changes to universal service at the federal level and changes in technology. This study shall investigate the universal service and intercarrier compensation systems to maintain telecommunications services and extend broadband-capable infrastructure. Input shall be solicited from the Public Service Commission, regulated entities, broadband and telecommunications carriers, service users, and the public. Study topics may include, but not be limited to, the following areas:

(1) Modernization of the existing framework for contribution to and use of the Nebraska Telecommunications Universal Service Fund (NTUSF);

(2) The progress or results of the NTUSF broadband pilot program, dedicated wireless program, and broadband mapping grant project;

(3) Ability of Nebraska citizens, schools, businesses, and health care services to access Internet services;

(4) Effects on Nebraska of recent reforms to the federal Universal Service Fund and intercarrier compensation by the Federal Communications Commission;

(5) Other possible funding mechanisms for statewide broadband access ensuring comparable rates for all users; and

(6) Other states' approaches to fund affordable broadband access.

Hearings

Scottsbluff, John N. Harms Advanced Technology Center - Thursday, October 24th, 2013
Aurora, Bremer Center - Monday, October 28th, 2013
Lincoln, State Capitol hearing room - Tuesday, October 29th, 2013

Findings

Nebraska's Telecommunications Universal Service Fund (USF) works in conjunction with the Federal Universal Service Fund to ensure comparable telecommunications services for comparable rates for all Nebraskans. State laws can be found at Neb. Rev. Stat. 86-101 to 86-165. A history of USF is available in the annual report of the Nebraska Public Service Commission (PSC). An important aspect of universal service is the requirement for eligible

telecommunications carriers to offer services that are supported by the fund to everyone in their service area, also known as the “carrier of last resort” mandate. New challenges to universal service come from the rapidly changing technologies of advanced telecommunications, specifically high speed broadband Internet. “Advanced Telecommunications” are defined by the Federal Communications Commission as download speeds of 4 Mbps and upload speeds of 1 Mbps or greater (see www.fcc.gov/document/fcc-launches-ninth-inquiry-broadband-availability). Reliability, redundancy, and security are all overarching themes to consider when evaluating the quality and types of advanced telecommunications.

It appears most Nebraskans have access to Internet service, it is the quality of their connection that varies widely by geography. According to the Nebraska Telecommunications Association every incorporated city in the state has access to broadband. Some very rural residents are limited in their options of service providers to satellite or a fixed wireless solution. Recent changes to the Federal USF by the Federal Communications Commission (FCC) will result in a decrease in overall funding, especially to high-cost rural areas.

A panel of Federal Telecommunications experts testified before the Committee to provide a context for the recent changes that resulted in the phasing out of Universal Service support and a new funding mechanism called the Connect America Fund. According to Harold Furchtgott-Roth, Nebraska should not rely on the Federal government for funding to rural areas. The decrease in Federal support affects investments by telecommunications providers in unserved and underserved areas in rural Nebraska. Due to a lack of confidence in lenders, rural-serving carriers are already unable to make infrastructure investments because of the uncertainty in future funding. Michael Balhoff commented that those unserved areas will become an economic wasteland without access to advanced telecommunications.

Cheryl Perrino applauded the Nebraska Legislature and PSC for setting up and administering a state Universal Service Fund that works well to distribute limited funds to those who need services most. The oversight and accountability by the PSC ensures user fees are used appropriately and not abused. If changes are made to the contribution or payment methods, it was recommended that the PSC and Legislature first calculate expected costs to deploy telecommunications services universally, to all Nebraskans, and estimate economic benefits to the state under any changes.

Economic benefits of universal service were highlighted in the hearings by local businesses and farmers, rural customers and Eric Thompson with the University of Nebraska Lincoln, Bureau of Business Research. The CEO of the Aurora Coop explained how important high speed Internet is to his company, ensuring world class telecommunications services allows businesses to stay on top in global markets. A farmer from Henderson expressed his need to have crop reports download quickly to allow him to make decisions on buying and selling his products in the online exchange. Rural residents testified about their ability to move back to their rural hometowns after living in Denver, Chicago and San Jose, because broadband Internet allowed them to telecommute or start up their own companies. Dr. Thompson presented a report showing a correlation between the availability of broadband services and increased business income, higher education, and the presence of young adults in rural Nebraska.

The Nebraska Statewide Telehealth Network is also funded by the NUSF. Testifiers emphasized that without this funding, thousands of Nebraska patients would not have been seen

and the telehealth field would not have advanced. It was suggested that the Legislature could improve telehealth in Nebraska by mandating insurance coverage parity and allowing remote patient monitoring.

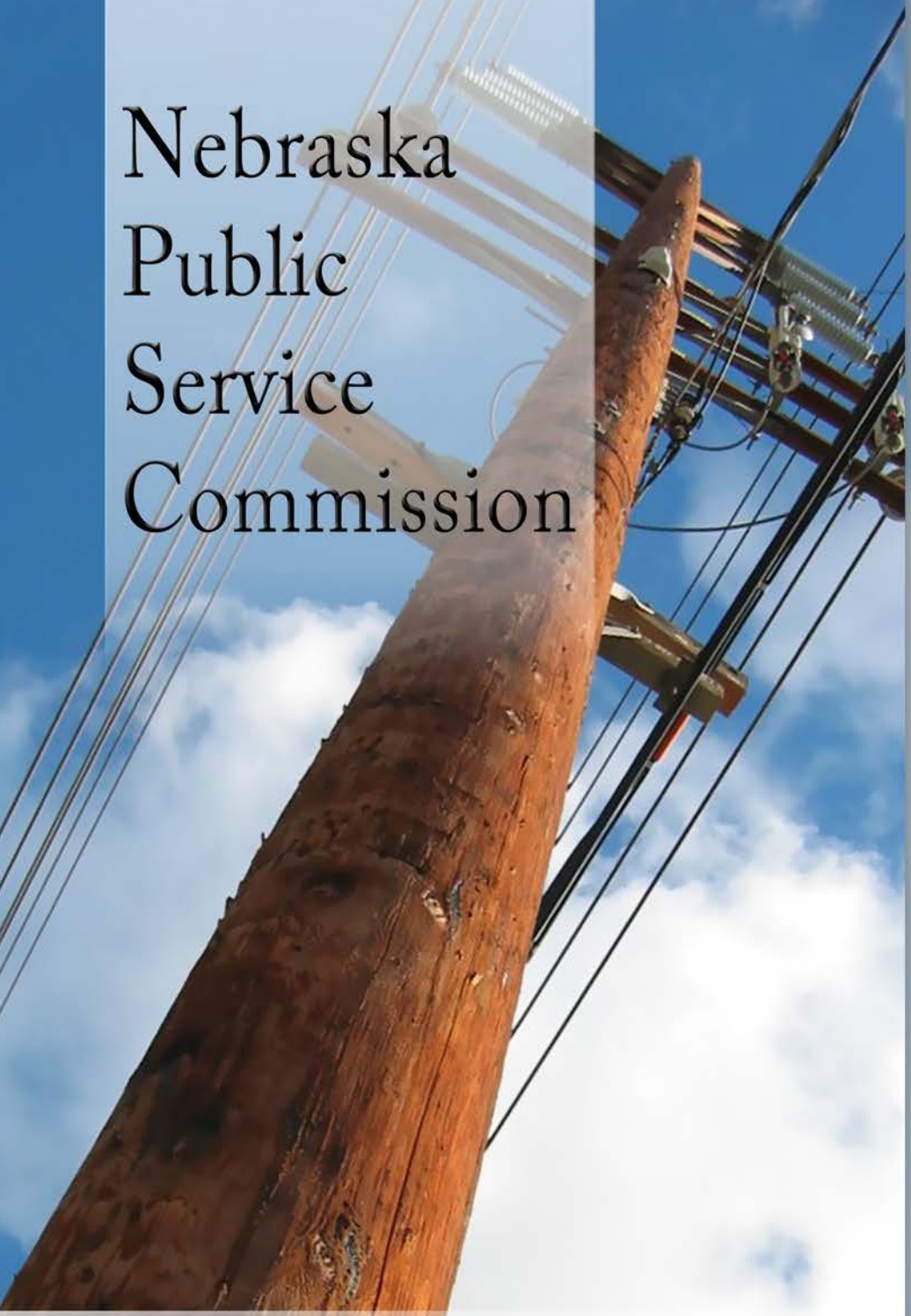
The Broadband mapping program was also discussed. Currently data is gathered voluntarily from service providers. Attempts are being made to gather data from users rather than providers to determine actual speeds rather than advertised speeds. More information is available online at http://broadband.nebraska.gov/.

A concern from some service providers was that the fund inappropriately "subsidizes" certain technologies over others creating an unlevel playing field. Committee members asked these providers if they received Universal Service funds and the response was that they could but chose not to accept such funding, or were unsure of their eligibility. The requirement by the PSC that USF recipients provide a voice component allows Voice Over Internet Protocol (VOIP) to satisfy that eligibility requirement. The PSC administers the fund in a technology neutral way to allow for innovation and advanced technologies that are not yet developed.

In addition to highlighting the importance of high speed Internet to rural Nebraskans, testimony offered ideas for alternative ways to fund advanced telecommunications. One idea was an infrastructure bank that makes loans instead of grants. The USDA report accompanying this report comments on the infeasibility of loans replacing grants where the high upfront investment costs are unlikely to be recovered.

Reports

Public Service Commission annual report 2013
State USF White Paper by Balhoff & Williams
Highlights of NACO Broadband Survey
Highlights of NEDA Broadband Survey
Economic Impacts of Rural Telecommunications Firms by Eric Thompson
Economic Benefits of Broadband Deployment in Rural Areas by USDA



Nebraska Public Service Commission

Annual Report on Telecommunications

2013

ANNUAL REPORT TO THE LEGISLATURE

ON THE STATUS OF

THE NEBRASKA TELECOMMUNICATIONS INDUSTRY

NEBRASKA PUBLIC SERVICE COMMISSION

September 30, 2013

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2013 ANNUAL REPORT TO THE LEGISLATURE
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September 30, 2013

On behalf of the Nebraska Public Service Commission (NPSC), the annual report on the status of the telecommunications industry in the State of Nebraska is provided. Over the past year, dramatic changes and growth continue in the telecommunications industry on every level. The Federal Communications Commission (FCC) continues to implement reforms to both Universal Service and the method of compensation between telecommunications carriers initiated by its landmark Connect America Fund Order in November of 2011. The transition from funding traditional telecommunications networks to funding a network capable of providing broadband services is ongoing.

The NPSC continues to work on broadband mapping and planning in conjunction with grants from the National Telecommunications and Information Administration (NTIA) and broadband availability through the Nebraska Broadband Program administered and funded by the Nebraska Universal Service Fund. One of our overarching goals is to continue efforts to provide broadband access to all areas and citizens of Nebraska.

In November 2012, the FCC issued an order mandating all incumbent telecommunications carriers to create and submit electronic boundary data to the FCC. The NPSC took a leadership role in the creation of the boundary data map for Nebraska and is in the process of transitioning from paper exchange maps to electronic maps. The Nebraska mapping data is nearly complete and will be submitted to the FCC by the NPSC on behalf of carriers in early fall.

During the 2013 legislative session, the Legislature passed LB 595 directing the NPSC to conduct an independent, third-party study to assess the existing enhanced 911 system and the implementation of Next Generation 911 in Nebraska. The Commission has retained the firm Mission Critical Partners Inc. to conduct the study. Some of the areas they are studying include infrastructure issues, GIS data requirements and the cost of implementation. A final report, including recommendations based on the study findings, is due to the Transportation and Telecommunications Committee of the Legislature in April 2014.

We continue to implement changes in the Low Income Telephone Assistance Program in accordance with FCC reform efforts and our outreach efforts to raise the profile of the program continue. This report contains detailed information on a variety of topics related to telecommunications, broadband and other related matters impacting Nebraska communications. If you have any questions, we welcome you and your staff to contact us or our staff at any time.

Sincerely,

Anne Boyle

Anne Boyle
Chair

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PART I

Overview

Brief History of the Commission

The Nebraska Public Service Commission (Commission) is a constitutionally created executive body established under Article IV, Section 20 of the Nebraska Constitution. The Commission is comprised of five elected Commissioners serving six-year terms. The Commission was initially created by the Legislature in 1885 to regulate railroads, but was not firmly established until the passage of a constitutional amendment in 1906 creating a three member elected Railway Commission. Membership was increased to five Commissioners in 1964 and the state was divided into five districts, each to elect a commissioner. The name was changed to the current Public Service Commission by a general election vote in 1972.

Today the Commission regulates telecommunications carriers, natural gas jurisdictional utilities, railroads, household goods movers and passenger carriers, grain warehouses and dealers, construction of manufactured and modular homes and recreational vehicles, high voltage electric transmission lines, and private water company rates. The Commission also oversees and administers several statutorily created funds with specific legislative purposes and goals including the Nebraska Universal Service Fund, the Enhanced Wireless 911 Fund, and the Nebraska Telecommunications Relay System Fund.

The Commission is active on local, state, and national levels and contributes on all levels to determine policy regarding the future of communications and universal service. Many Commissioners, past and present, have served on boards, committees, and advisory groups to recommend and give insight on policy matters to both state and federal agencies and legislative bodies. Currently, Commissioner Anne Boyle is serving as one of four state commissioners appointed to the Joint Federal-State Board created by Congress to make recommendations to the FCC on defining federal universal services and policy. Gene Hand, Director of the Communications Department at the Commission, is also serving as a staff member to the Joint Board.

History of Universal Service

Universal service is defined as providing comparable service at compatible rates in both urban and rural areas of the country. The concept of universal service began with the passage of the Federal Communications Act of 1934. The 1934 Act called for a nation-wide and world-wide wire and radio communication service at reasonable rates for all people of the United States. The telecommunications industry was noncompetitive, monopolistic, and fully regulated with AT&T being the predominant telephone company operating in the United States. Universal service was supported by a system of higher charges paid for long distance calls. In the 1980s there was a push for deregulating the telecommunications industry leading eventually to the breakup of AT&T in 1984. Universal service was still supported by a system of charges for long distance calls charged to a carrier to access the facilities of a local telephone company.

The Telecommunications Act of 1996

The Telecommunications Act of 1996 was the first major rewrite of the Communications Act of 1934 and legislatively encouraged increased competition and universal service. The 1996 Act set out priorities for universal service, including quality and reasonably priced services for all customers including those in rural, low-income and high-cost regions, equitable and nondiscriminatory service, specific and predictable price structure, and access to service for schools, health care institutions and libraries. The goals were to be achieved through the creation of the Universal Service Fund (USF) into which all telecommunications providers are required to contribute a percentage of their telecommunications revenue.

The Telecommunications Act of 1996 further provided for competition in the local service market. The Commission implemented key provisions of the 1996 Telecommunications Act to further the goal of increased competition while maintaining quality and affordable service. The Commission under the 1996 Act designated companies as competitive local exchange carriers (CLECs) to provide service in areas previously served by monopoly companies. CLECs served customers by using either the facilities of the existing local company for a fee similar to leasing or using their own facilities. The creation of CLECs fostered competition by giving customers more than one choice of telecommunications provider in a local market. The Commission authorized a number of CLECs to compete with the incumbent local companies for service in Nebraska.

As stated above, the 1996 Act also created the Joint Federal-State Board to make recommendations to the FCC on defining federal universal services and policy. The Joint Board has explicit authority to recommend modifications to what services will be supported with USF dollars and the 1996 Act requires that the FCC act within one year on any recommendation received from the Joint Board. The Joint Board also is responsible for ensuring that federal universal service policies continue to be based on a list of principles articulated in the 1996 Act.

Nebraska Universal Service

In 1997, the Nebraska Legislature passed legislation authorizing the Commission to create the Nebraska Universal Service Fund (NUSF). The goal of the NUSF is, in conjunction with federal universal service funds, to ensure that all Nebraskans have comparable access to telecommunications services at affordable prices. To accomplish this goal, the Commission created five programs within NUSF, 1) the high cost program; 2) the low income assistance program; 3) the rural tele-health program; 4) the dedicated wireless fund program; and 5) the broadband pilot program. For more information on the NUSF, see Part III of this report.

The Changing Face of Communications

While the creation of the Federal Universal Service Fund and NUSF was specifically geared towards making telephone communications readily available to everyone, the speed with which the digital age emerged quickly made it clear that the internet was to be the next great form of communication. As technology advanced and more and more information and services

became available in online formats, bringing broadband and mobile communication to rural and unserved areas began to be discussed as part of the universal service paradigm.

The FCC Connect America Fund Order

After years of debate and reform efforts, in October 2011, the FCC issued an order formally proposing a "Connect America Fund" or CAF and approving a six-year transfer process that would transition money from traditional wireline telecommunications support to a new $4.5 billion a year CAF for broadband Internet expansion. The CAF order addressed universal service reforms as well as reforming of the payment system between local and long distance carriers, called intercarrier compensation.

Universal Service Reforms

The CAF order transitions away all existing universal service high-cost support mechanisms for traditional wireline telephone companies and will ultimately replace them with CAF money which is specifically purposed to help make broadband available in areas that do not, or would not otherwise, have fixed or mobile broadband. The CAF includes a new Mobility Fund and a Remote Areas Fund. Telecommunications companies receiving CAF money will be required to offer both voice and broadband services and to meet specific broadband performance requirements.

Intercarrier Compensation

The CAF order also transitions the existing payment framework of access charges between companies to a bill-and-keep system for both local and long distance calls. The bill-and-keep methodology requires companies to recover the cost of providing service directly from their customers through end-user charges, which are subject to competition. In contrast, under the access charge framework, companies recover some of the costs of providing service from competing carriers through access charges, which may not be subject to competitive discipline. Thus, the FCC found bill-and-keep would give companies competitive incentives to serve their customers efficiently. The CAF order does allow for a transition period to gradually lower current access rates in the move toward bill-and-keep, but sets a date of July 1, 2020, when all companies will reduce their rates to bill-and-keep for all traffic.

The FCC CAF order represents a fundamental paradigm shift in the concept of universal service from predominantly supporting and funding traditional telephone service to a system to support the development and maintenance of broadband networks. For more information on broadband, see Part II of this report.

Looking Forward: the State Role

The preservation and advancement of universal service goals continues to be a joint enterprise between the states and the federal government. Although the federal USF collects and distributes the majority of the funding in the country, the states play an integral role in framing,

overseeing, and enforcing compliance with basic obligations for telecommunications services that constitute the foundation of the concept of universal service.

State utility commissions are responsible for many regulatory tasks in cooperation with federal authorities to assist and enforce federal universal service policies. For example, states are responsible for designating telephone companies as Eligible Telecommunications Carriers (ETCs) whereby the company is then eligible to receive federal USF and/or CAF support. States also oversee the federally supported Lifeline services. And most important, 21 states have established their own state USFs that provide support to carriers to assist in keeping basic telecommunications services affordable for customers, especially in rural high-cost areas. Further, 22 states and the District of Columbia have state USFs to provide support for Lifeline services to low-income customers. Some states, including Nebraska, are also expanding their state USFs to include support for broadband capital investment by carriers in rural high-cost areas.

As discussed above, the Federal-State Joint Board on Universal Service has played an important role in the formulation of universal service principles and policies since its creation. In view of the strong and unwavering State interests in a universal service partnership with the FCC, a meaningful collaboration between the Commission and the Joint Board in this regard continues to be of paramount importance.

Federalism Task Force

The preservation and continued operation and existence of State USFs and their work in cooperation with the federal USF is critical to the advancement of universal service principles in the 21st Century. With the expansion of the federal principles in the CAF Order to include broadband and other advanced services, the role of the states have never been more important.

The National Association of Regulatory Utility Commissioners (NARUC) established the Federalism in Telecommunications Task Force in November 2012 to review changes in communications services and regulation (including the transition to Internet Protocol (IP) based services) and to determine what policies will best protect and support consumers going forward. The Task Force was composed of commissioners and staff from both states that have reduced or eliminated retail communications regulation and those that continue to regulate communications. After deliberation and input from NARUC members, industry, consumer groups, academics, and the FCC, the Task Force recommends that the States and the FCC work collaboratively to determine how best to support consumers as the communications environment continues to evolve. To support this "cooperative federalism," the Task Force proposed eight Principles to guide State and federal legislation and regulation going forward. Those Principles include consumer protection, network reliability and public safety, competition, interconnection, universal service, evidence-based decision making, and broadband access, affordability, and adoption. The Task Force report will be published in September 2013. NARUC will vote on a resolution accepting the report and officially endorsing the policy of cooperative federalism at its annual meeting in November 2013.

PART II

Broadband

Broadband Defined

Broadband is a generic term commonly used to refer to Internet access through some means other than a dial-up modem. The typical forms of technology used as transport for broadband are digital subscriber loop (DSL), cable-modem, wireless, optical fiber, and satellite technologies.

DSL broadband service uses telephone wiring and is typically provided by a local telephone company. The range of DSL is limited to a distance of three to five miles from the telephone company's central office depending upon the equipment utilized.

Remote or cable modem is typically provided by a local cable company and requires a connection to the cable provider. Depending upon the data transmission speed desired, DSL and cable modem service are usually similar in cost and effectiveness.

Wireless and satellite technologies continue to gain broadband market shares and provide broadband services to areas that are beyond the maximum distance for DSL or where video cable service is not available. While wireless and satellite service is typically more costly than DSL or cable modem, competition and equipment technology advances are bringing the price points closer together.

Both the FCC and the National Telecommunications and Information Administration (NTIA) have adopted the following broadband categories and speeds to better represent today's technologies. The following speed categories are used by the Commission in the collection of data for the Broadband Mapping initiative (See Mapping section below).

Code	Name
2	Greater than 200 kbps and less than 768 kbps
3	Greater than or equal to 768 kbps and less than 1.5 mbps
4	Greater than or equal to 1.5 mbps and less than 3 mbps
5	Greater than or equal to 3 mbps and less than 6 mbps
6	Greater than or equal to 6 mbps and less than 10 mbps
7	Greater than or equal to 10 mbps and less than 25 mbps
8	Greater than or equal to 25 mbps and less than 50 mbps
9	Greater than or equal to 50 mbps and less than 100 mbps
10	Greater than or equal to 100 mbps and less than 1 gbps
11	Greater than or equal to 1 gbps

Broadband over Power Line (BPL) is a technology used to deliver high-speed data to end-users over existing electric power networks and lines. BPL, also known as power-line communication, utilizes electric power distribution wires for the high-speed transmission of data by transmitting high-frequency data signals through the same power distribution network used

for carrying electric power to household users. Currently BPL technology is capable of carrying broadband signals along a power line for around 1,000 to 3,000 feet before it becomes too weak or distorted to be useful. Innovation and technology continue to expand the capability of BPL, however, currently it is usually not the most cost effective method of providing ubiquitous broadband in Nebraska.

American Recovery and Reinvestment Act of 2009

On February 17, 2009, President Obama signed the American Recovery and Reinvestment Act of 2009 (ARRA) into law. The ARRA is administered by the Rural Utilities Service (RUS) and the National Telecommunications and Information Administration (NTIA). RUS and NTIA were appropriated $7.2 billion to expand access to broadband services in the United States.

The ARRA designated $2.5 billion for RUS to establish the Broadband Initiatives Program (BIP). BIP utilizes loans and grants to facilitate broadband deployment in rural areas of the country. The ARRA also designated $4.7 billion for the NTIA to provide grants for broadband initiatives to spur job creation, stimulate long-term economic growth and opportunity, and narrow gaps in broadband deployment and adoption.

Broadband Mapping

The ARRA also appropriated $350 million to establish a comprehensive nationwide inventory map of existing broadband service capability and availability in the United States that depicts the geographic extent to which broadband service capability is deployed and available from a commercial provider or public provider throughout each State. ARRA tasked the mapping project to the NTIA and the NTIA has sought help from state designated entities in completing the mapping project. The NTIA provided the opportunity for each state to apply for a grant of up to $3.8 million to fund that state's broadband mapping project. Each state that submitted a broadband mapping application had the opportunity to seek an additional $500,000 for broadband planning. The Governor designated the Commission as the entity to apply for a Grant from the State Broadband Data and Development Program for the mapping and planning funds. Nebraska was awarded a Grant on January 13, 2010, for a five year period. While the overall award period was from January 1, 2010, through December 31, 2014, the initial funding period for the broadband mapping activities was for the period January 1, 2010, through December 31, 2011. The Commission completed the initial two year grant with 4th round broadband data submission on September 28, 2011. A second funding period was awarded to Nebraska on September 28, 2010, for the final three year period from January 1, 2012, through December 31, 2014, and a 7th round of broadband data was submitted on April 1, 2012.

Broadband Providers

After extensive research using the Internet and telephone interviews and information from the FCC and the Commission's data bases, the Commission initially identified 124 companies providing broadband services in Nebraska. Eighty-nine companies are identified as

potential providers of data and participated in the mapping project. Two companies refused to participate and the remaining 41 were determined to be resellers of internet services and unnecessary to include in the project as reseller data is duplicative of the underlying provider.

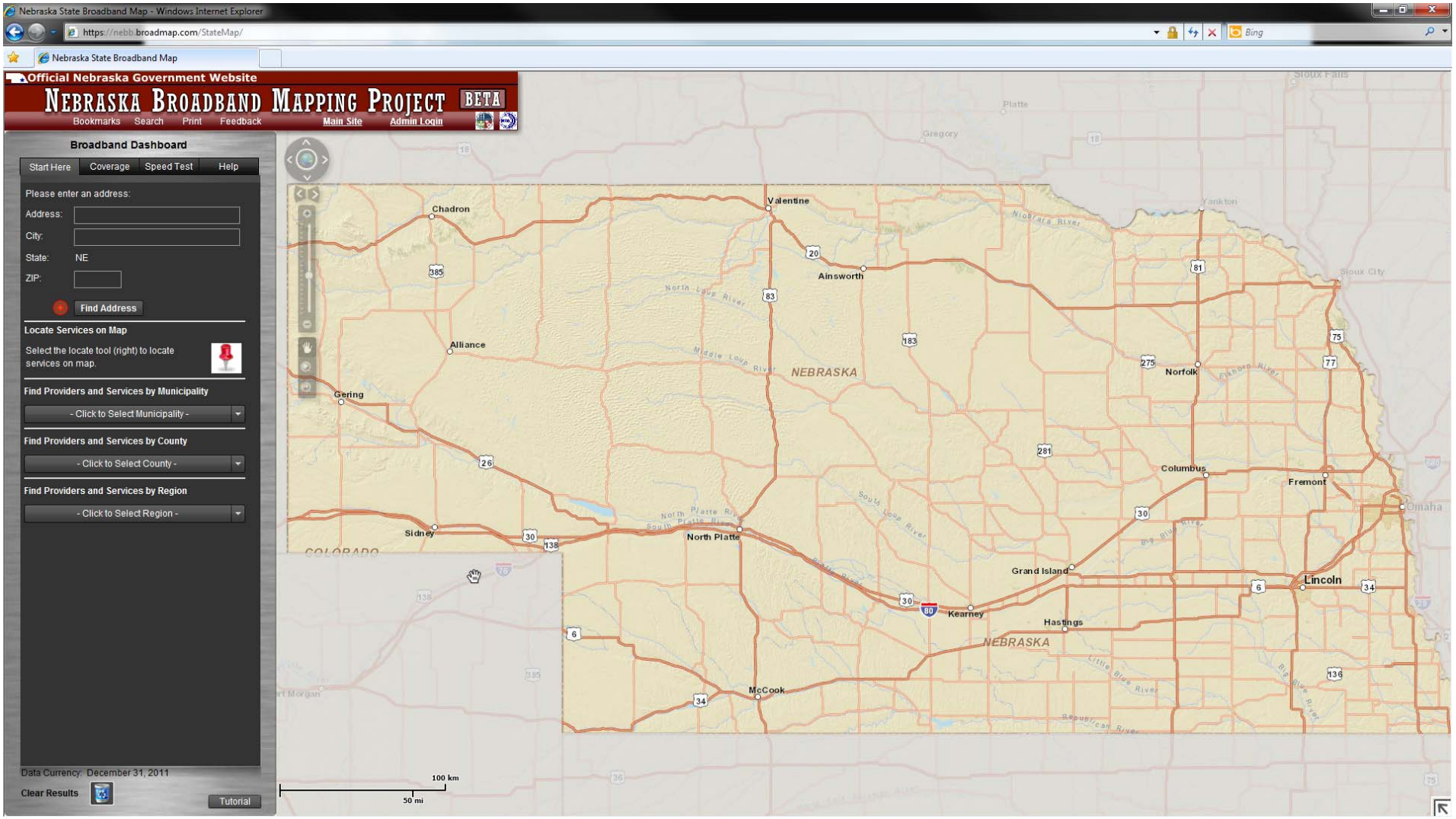
Data Collection and Modeling

Data models and input tools were initially mandated by the NTIA for the mapping project, and as the project evolved, additional requirements have been imposed on the Commission and the providers. Commission staff has developed tools and methods of collecting the required data that minimizes the burden on the providers while improving the quality and accuracy of the data submitted.

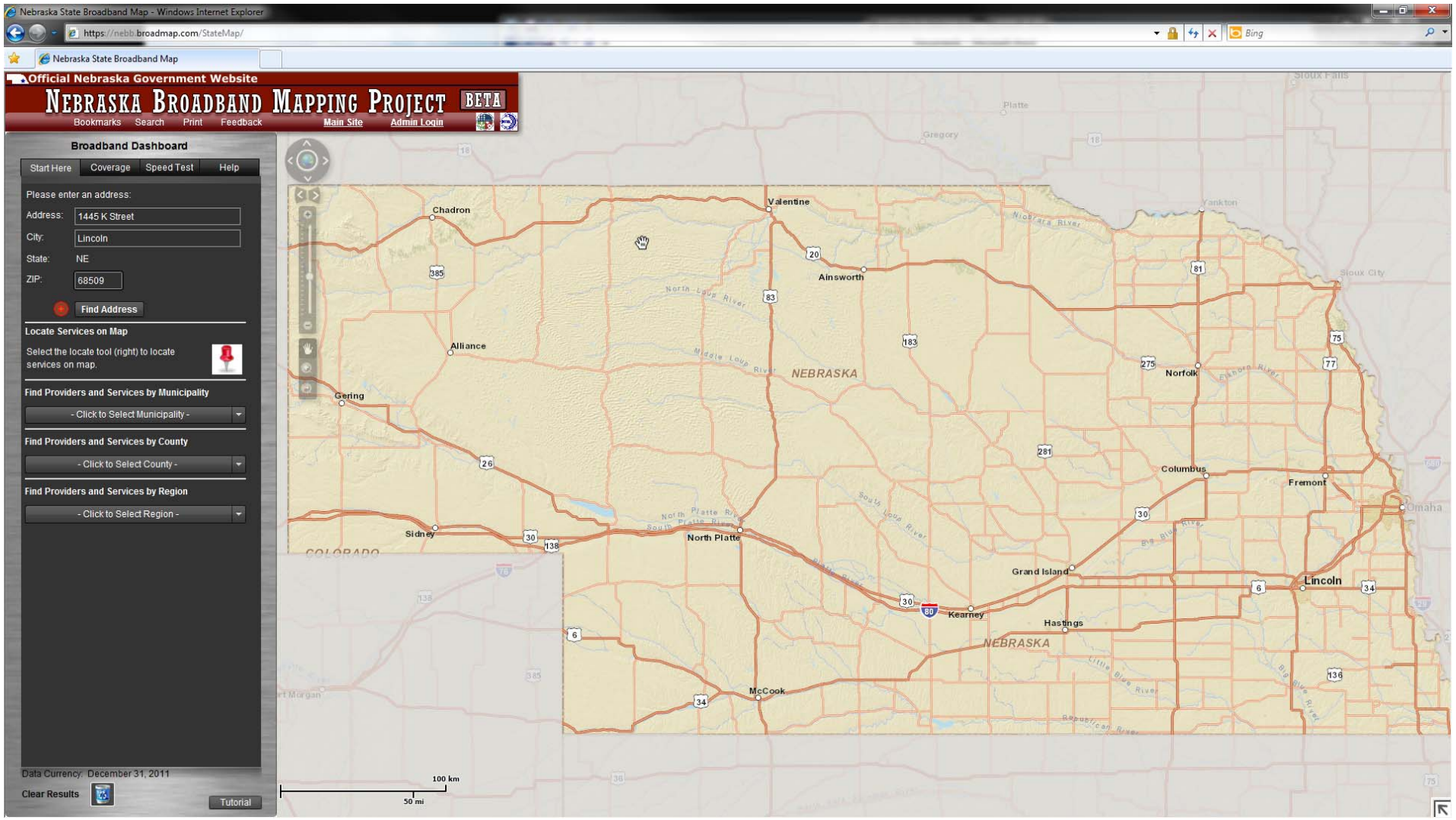
After the data is received from the providers, the Commission's Graphical Information System (GIS) provider develops a graphical representation of the data for providers review. The Commission then conducts a final review of all data before the data is transmitted to the NTIA and the Nebraska Broadband Map is updated.

The Nebraska Broadband Map can be found at: http://broadbandmap.nebraska.gov.

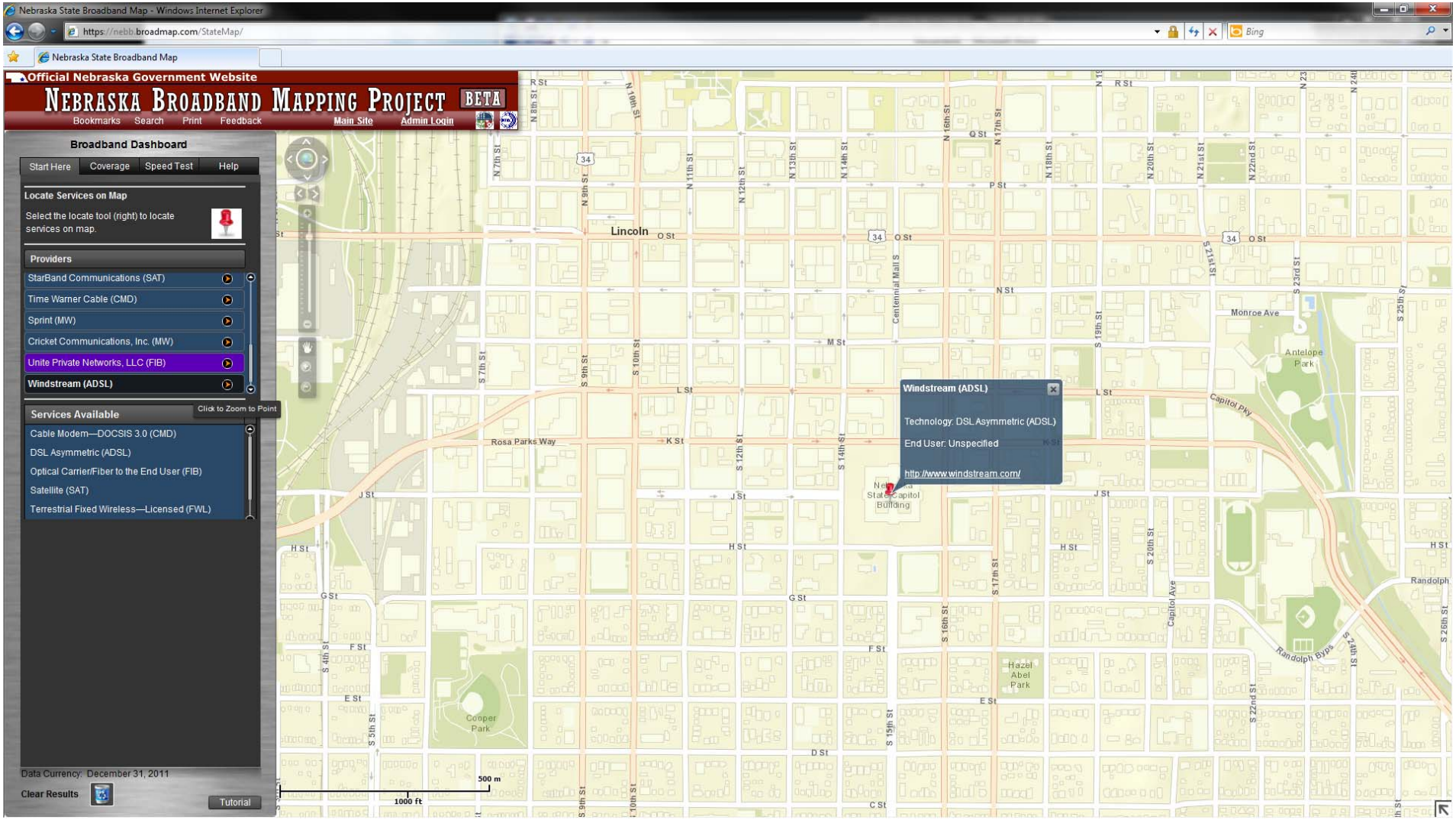
The National Broadband Map can be found at: http://www.broadbandmap.gov.



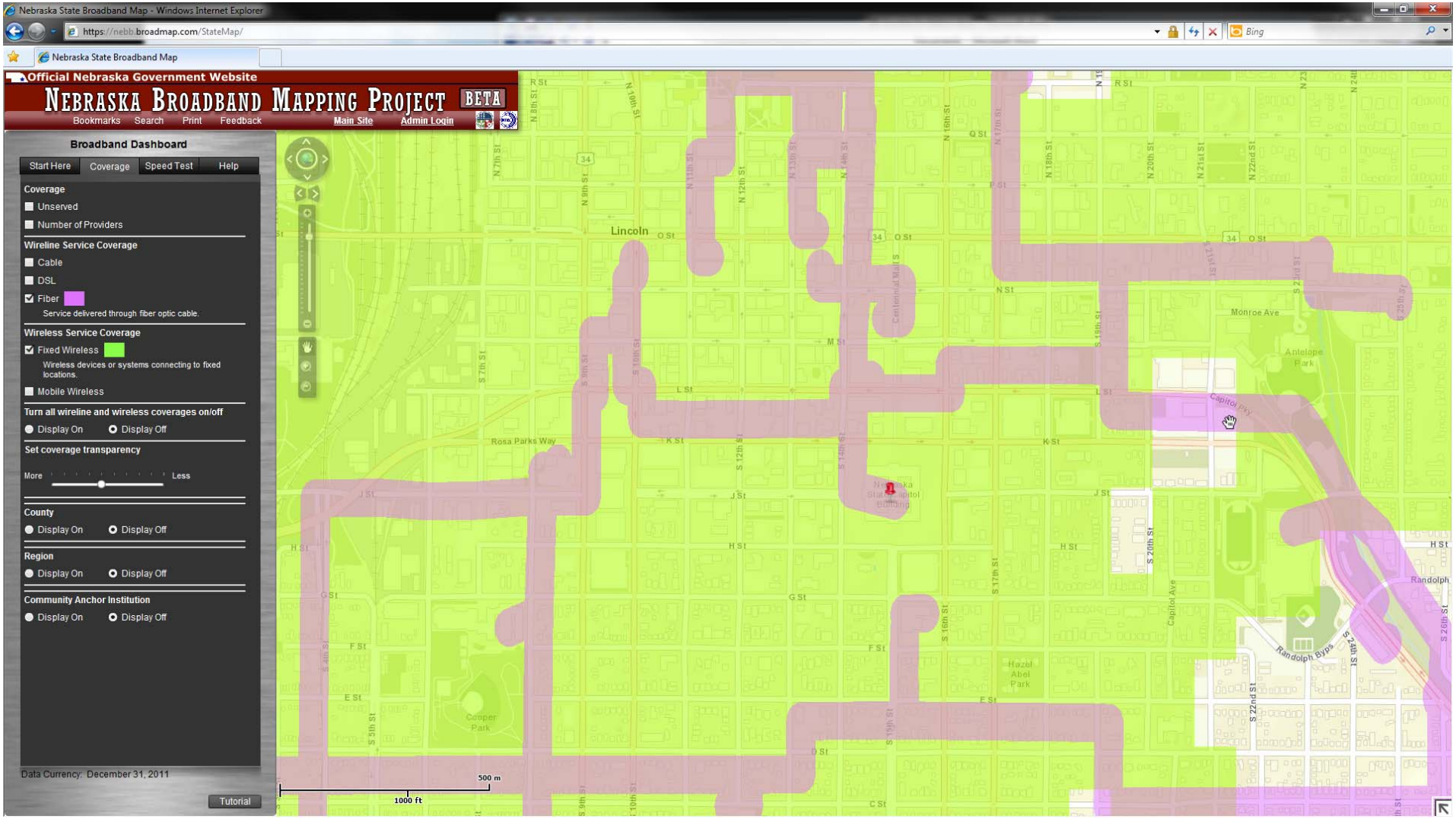
The home page of the Nebraska Broadband Map found at http://broadbandmap.nebraska.gov. The dashboard to begin a search of the map is located on the left-hand side of the home page.



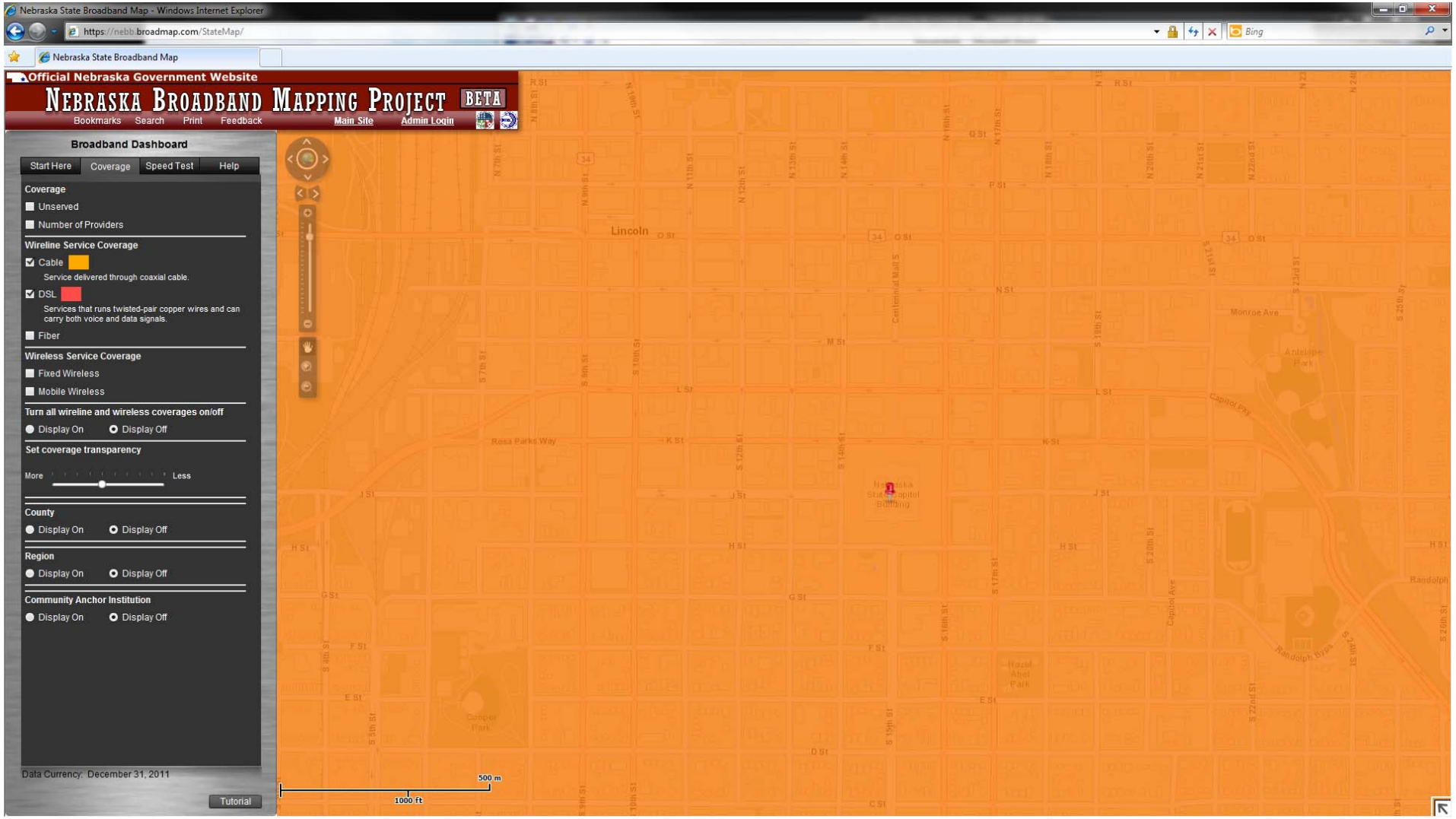
To search for broadband availability in a certain location an address is typed into the search fields. The address of the Nebraska State Capitol has been inserted above.



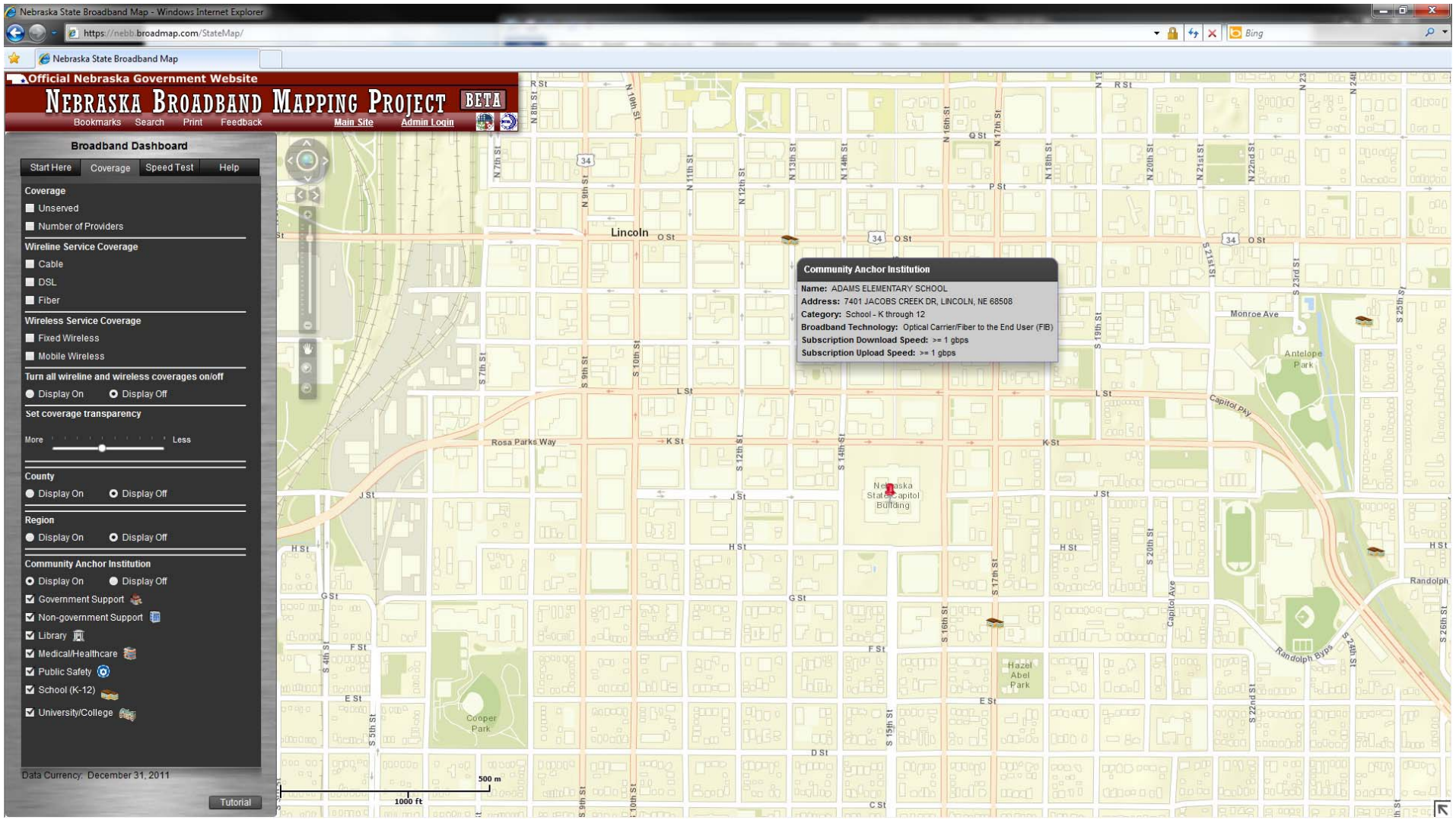
The results of searching for the address of the Capitol are displayed above. Broadband service providers reporting available service at the selected address are displayed on the left-hand side of the map. Information about the provider selected is shown over the selected address on the map. Above, Windstream was selected and shows on the map. The information included with the provider on the map identifies the technology available from the provider at the selected location and contact information to receive more information about the provider's service.



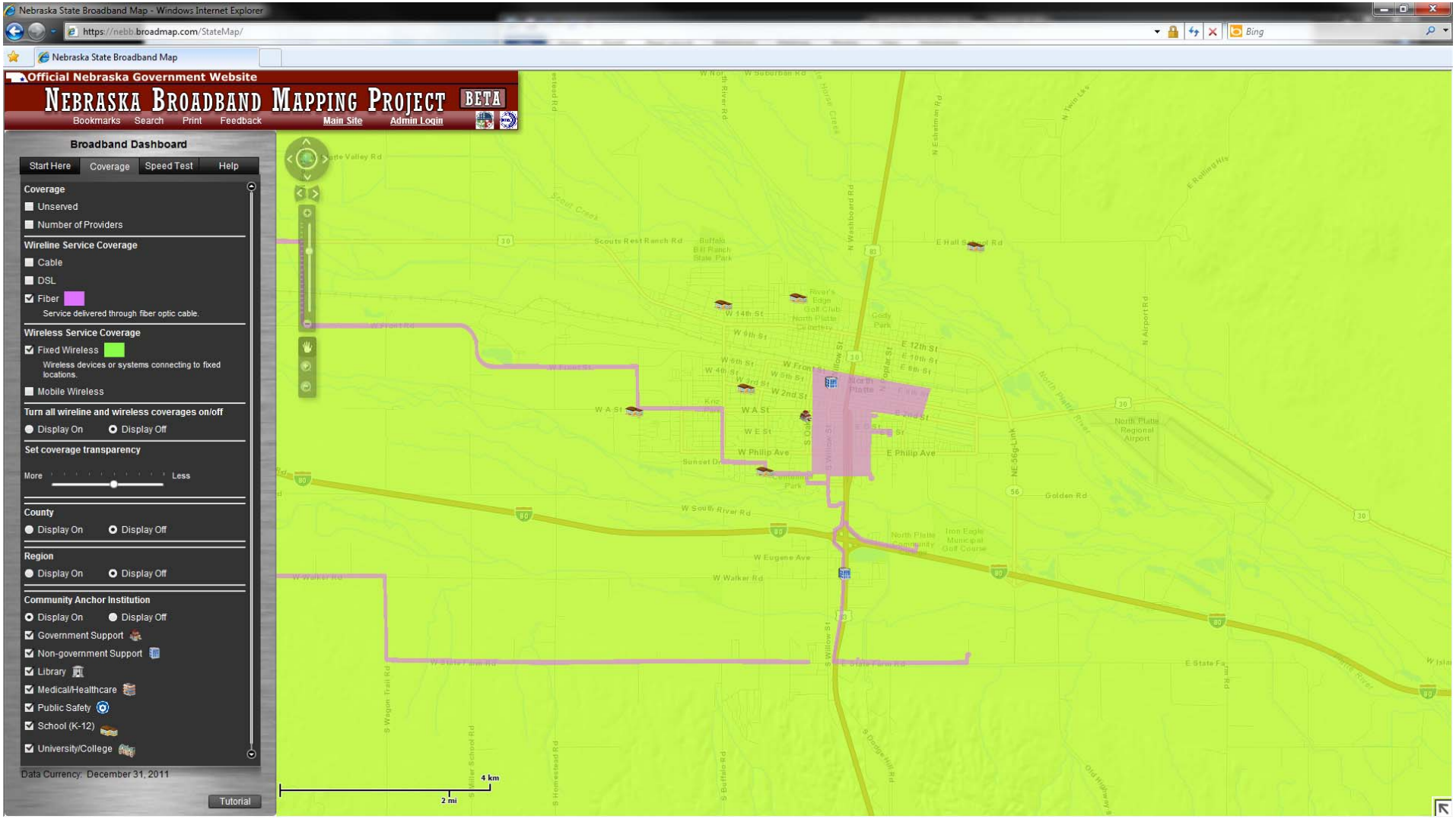
The coverage menu on the dashboard displays the types of broadband services available in the selected location. Users can check which type of service they want to see in the area or select all coverage types. Above, the wireline service delivered by fiber and the fixed wireless service available in the area around the State Capitol are displayed.



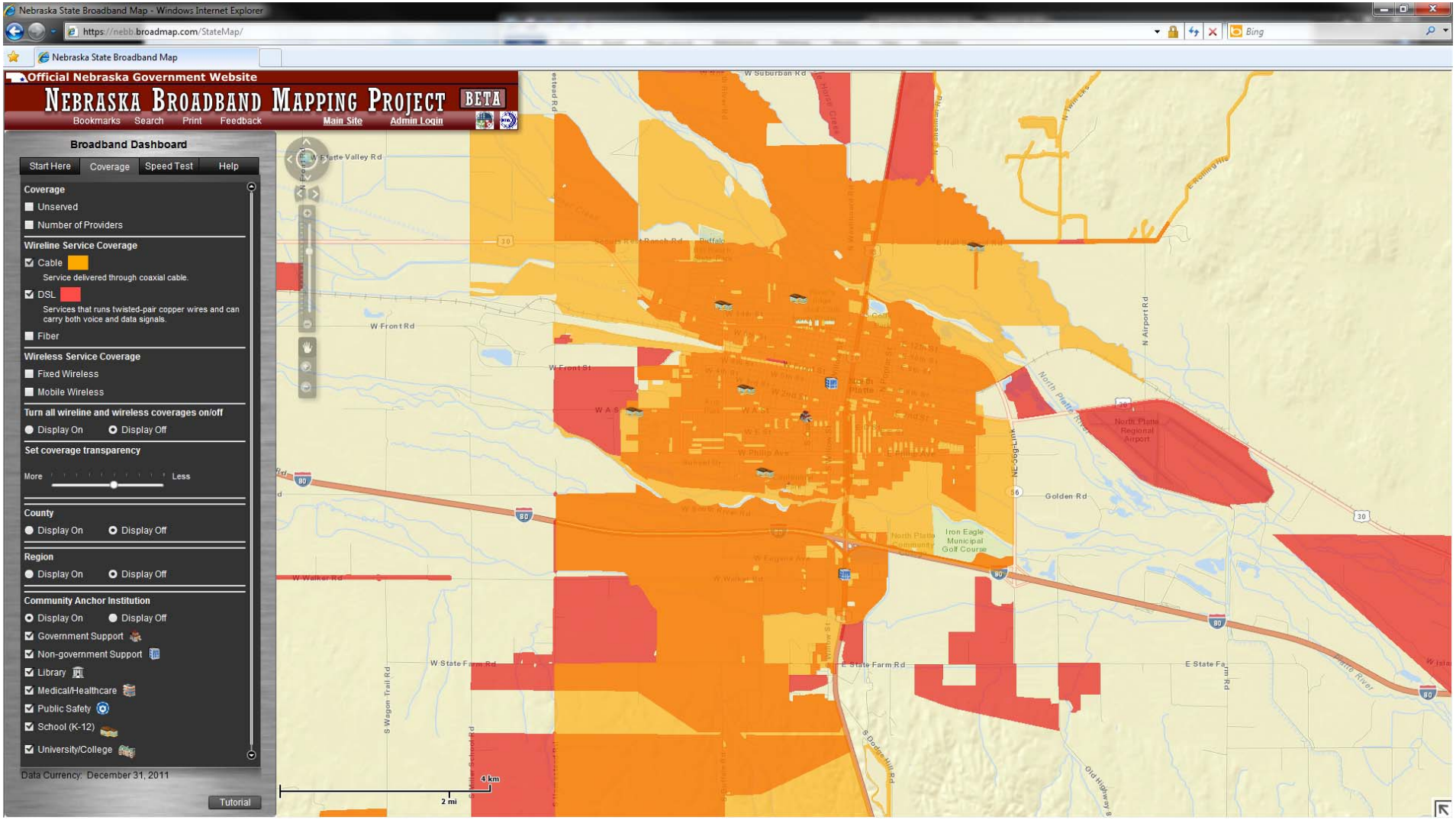
Above, the wireline cable and DSL availability in the area around the State Capitol are displayed. The solid color of the map indicates ubiquitous coverage in the area for the selected technologies.



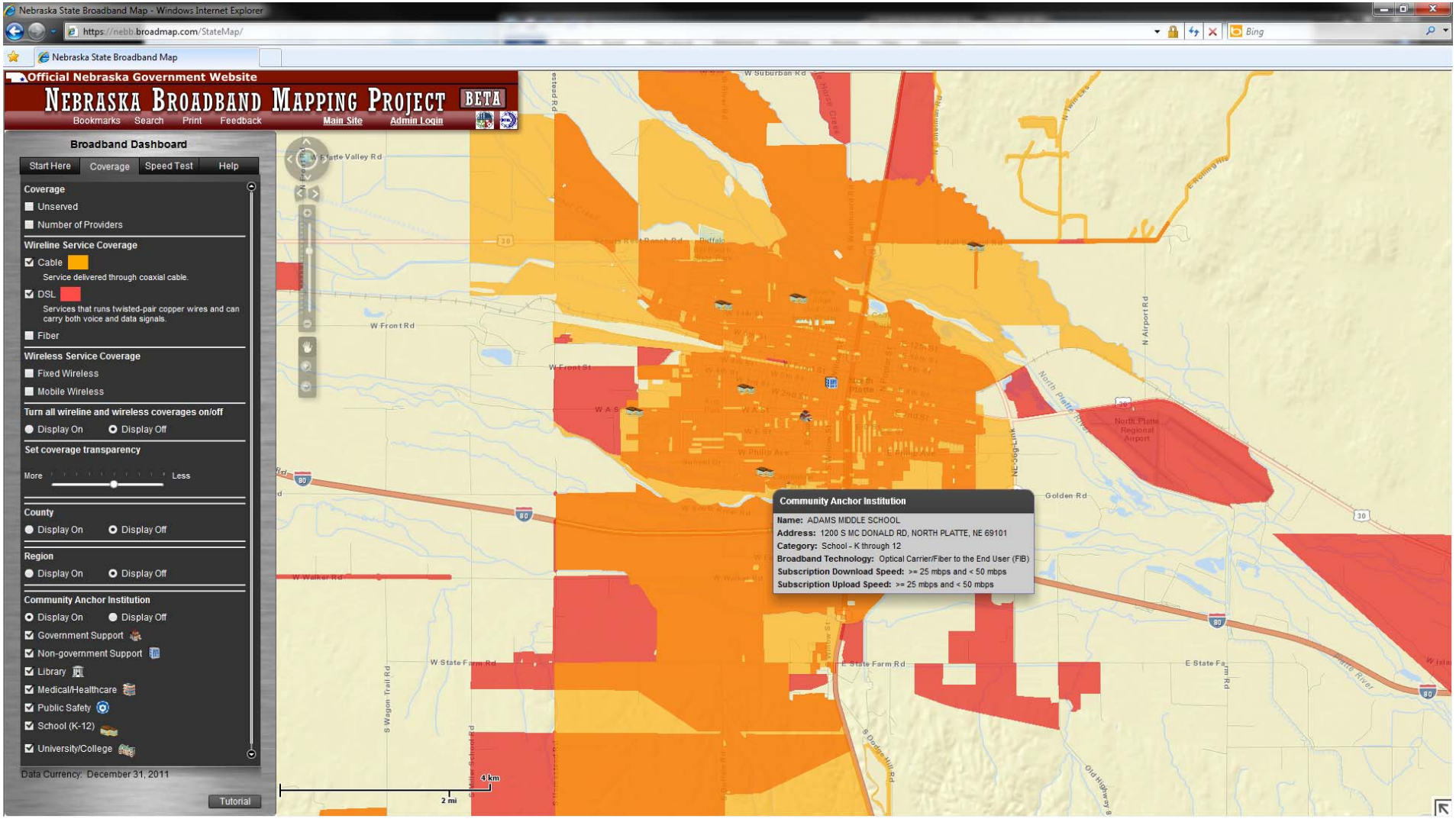
The map will also identify community anchor institutions in the selected area. At the bottom of the coverage menu on the dashboard the searchable types of community anchor institutions are listed and the map displays icons for any selected institutions in the area. Above, all institutions in the area are displayed. The institution icon for Adams Elementary School has been selected displaying the name, address, broadband service available to that institution, and other related information.



The map enables searches of communities or other larger areas not just specific street addresses. Above, the search results for North Platte, Nebraska, with the fiber and fixed wireless service available in the area being displayed along with the location of the community anchor institutions.



Above, the cable and DSL offerings available in the North Platte area are displayed.



Above, the community anchor institution icon for Adams Middle School is selected with the information on the school displayed.

Infrastructure Build-out

In January of 2010, the Commission received a Petition from the Nebraska Telecommunications Association (NTA) to conduct a review of the NUSF High-cost Program. The Petition focused on issues related to deployment of broadband-capable networks throughout the state. The Commission sought comment on the Petition and requested that interested parties brief the issue of whether supporting broadband was included in the statutory authority granted to the Commission in the Nebraska Telecommunications Universal Service Fund Act.

On November 3, 2010, the Commission issued an order finding it possessed statutory authority to provide universal service support for broadband service. On June 14, 2011, the Commission issued a further order seeking comments and setting a hearing on a proposed Nebraska Broadband Pilot Program. The Commission's order sought comment on eligibility requirements and the application process. The Commission further studied other state broadband grant programs to gather best practices used by these states to quickly and efficiently target areas without sufficient broadband availability.

On November 21, 2011, the Commission entered an order establishing the Nebraska Broadband Pilot Program (NEBP). The NEBP was established to provide targeted support for unserved and underserved areas to close the broadband availability gap. In its order, the Commission found support should be made available for broadband capital improvement projects and determined that any type of facilities-based provider would be eligible to apply for and receive NEBP support. The Commission further created a baseline set of eligibility requirements. For more information on the NEBP, see Part III of this report.

Nebraska Internet Enhancement Fund

The Nebraska Internet Enhancement Fund (NIEF) was created by state statute in 2001 to provide start-up funding for economically viable and sustainable infrastructure projects that bring internet and advanced telecommunications services to communities and counties where they are most needed. NIEF Grants are usually awarded in amounts up to $50,000, however, larger projects of exceptional merit have been awarded, with applicants required to provide matching funds of at least 25% of the total projected cost. To date, 13 grants have been awarded, the two most recent in January of 2012 to Box Butte County and Nebraska Cooperative Government group. Various communities, counties and cooperative government groups have been awarded NIEF Grants, including the Counties of Cheyenne, Box Butte, Dawes, Nemaha, and Banner, as well as the Harlan and Furnas County Partnership. Further, Grant recipients include the communities of Broadwater, Chappell, Dix, Bushnell, and Elsie, and the Nebraska Cooperative Government group which includes the communities of Humphrey and Schuyler. NIEF grant funds awarded to date totals approximately $660,000.

Competitive Marketplace Fund

The Competitive Marketplace Fund consists of voluntary payments made by Qwest Communications d/b/a CenturyLink QC, for failure to comply with the requirements of a Quality Performance Assurance Plan ("QPAP") entered into by Qwest with CLECs. The QPAP became

effective once the then Qwest was approved by the FCC to provide long distance service in Nebraska. Voluntary payments are divided into two types, denoted as Tier 1 and Tier 2 payments. Tier 1 payments are remitted directly to CLEC affected and Tier 2 payments are remitted to the Commission. Tier 2 payments deposited to the fund for fiscal year 2012-13 totaled $5,650 as compared to $750 for fiscal year 2011-12. There were no costs or professional/audit fees incurred during the 2012-13 fiscal year.

In 2008, the Legislature passed LB 755 which lowered the maximum balance in the fund from $100,000 to $30,000. If the fund balance exceeds $30,000, the Commission is responsible for remitting such excess to the Nebraska Internet Enhancement Fund. Transfers from the Competitive Marketplace Fund to the Nebraska Internet Enhancement Fund for the fiscal year of 2012-13 amounted to $6,376.

Low Income Pilot Programs

In an order issued in February of 2012, the FCC significantly reformed the low-income program supported by the federal and state USFs called Lifeline. In that order, the FCC also took firm steps toward expanding the Lifeline program to include broadband service. The FCC created a Pilot Program to gather data to test how the Lifeline program could be structured to promote the adoption and retention of broadband services by low-income households.

Robust, affordable broadband has become essential to access jobs, education and economic opportunity. For example, more than 80 percent of Fortune 500 companies today require online job applications. Students with broadband at home have a 7 percent higher graduation rate. According to a recent study by the Pew Research Center, the top three barriers to broadband adoption are digital literacy, relevancy and cost. Low-income households adopt broadband at much lower rates than the average household, even when access to high-speed Internet is readily available. According to the U.S. Census Bureau, fewer than 36 percent of families with incomes less than $25,000 subscribe to broadband at home, compared to nearly 92 percent of families with incomes over $75,000.

The FCC solicited applications from ETCs to participate in the Pilot Program and selected a small number of projects. The FCC then authorized up to $25 million for funding of the Pilot Program for up to 12 months to provide subsidized broadband service to offset the cost to customers to purchase broadband and to test the impact on broadband adoption with variations in the monthly discount provided.

The primary goal of the Pilot Program is to gather high-quality data that will help identify effective approaches to increasing broadband adoption and retention by low-income consumers and to enable the FCC and states to evaluate how best to structure a Broadband Lifeline program in the future. By transitioning the Lifeline program to include broadband assistance, USF is moving toward helping to bridge the digital divide by reducing and removing barriers to receiving and utilizing broadband. The Commission continues to monitor the Pilot Programs closely with an eye toward possible future expansions of Nebraska Telephone Assistance Program (NTAP) to include broadband support. For more information on the FCC Lifeline Reform Order, see Part III.

PART III

Nebraska Universal Service Fund

Overview

New This Year

In 2013 the Commission moved toward combining two programs within Nebraska Universal Service, the Dedicated Wireless Fund Program and the Nebraska Broadband Pilot Program (NBP). The Commission found since the goals of the two programs are similar; it would be more efficient and accelerate the expansion of broadband to combine the two funds into one Program. In September, the Commission decided to accelerate the consolidation to the beginning of calendar year 2014.

Legislative History

In 1997, the Legislature passed LB 686, authorizing the Commission to create the Nebraska Universal Service Fund (NUSF). The goal of the NUSF is, in conjunction with federal universal service funds, to ensure that all Nebraskans have comparable access to telecommunications services at affordable prices.

There have been many Legislative changes since the original passage of the bill in 1997. In 1999, LB 514 exempted Lifeline recipients from paying the NUSF surcharge. Legislative Bills 389, 1105, and 1211, passed in 2001 and 2002, clarified the Commission's NUSF authority regarding wireless companies and re-codified the applicable NUSF statutes. Legislative Bill 37 passed during the 2002 special session, allowing the State to borrow monies from the Universal Service Fund with certain restrictions. The borrowing provisions sunsetted on June 30, 2007. In 2004, LB 1004 changed the name of the Lifeline/Link-Up Program to the Nebraska Telephone Assistance Program (NTAP).

In 2007, LB 661 among other things, clarified that the Commission could assess all providers of telecommunications the NUSF surcharge on intrastate telecommunications, consistent with the 1996 Act. The FCC found a distinction between providers of telecommunications and those who offer telecommunications services. Accordingly, the NUSF Act was modified to be consistent with increased flexibility in the FCC interpretations of the 1996 Act.

Purpose

To ensure that all Nebraskans have access to quality telecommunications and information services at affordable and comparable rates, the Commission created the following five programs within the NUSF:

1. Broadband Pilot Program, which supports the provision of broadband telecommunications infrastructure in unserved and underserved areas of the State.

2. Rural Tele-Health Program, which supports the provision of telecommunications services to a statewide Tele-Health network.

3. Nebraska Telephone Assistance Program (NTAP), which was formerly known as the Lifeline/Link-Up Program. This program provides discounted rates to qualifying low-income Nebraskans.

4. Dedicated Wireless Fund Program, which supports the provision of wireless telecommunications infrastructure in rural unserved and underserved areas of the State.

5. High Cost Program, which seeks to make telecommunications and information rates generally affordable and comparable across Nebraska.

Each program will be discussed in more detail below.

Assessment

Mechanism and Revenues

The Commission, by order and after public hearing, maintained the NUSF surcharge at 6.95% of in-state retail telecommunications revenue through June 30, 2013. Interstate and Internet services are not subject to the NUSF surcharge. The Commission determines assessable services through the use of FCC federal universal service definitions in order to reduce the amount of duplicate administrative work for telecommunications providers. Specific categories of services subject to the NUSF surcharge are:

- Local service, including connection charges, enhanced service, such as Caller ID, and Extended Area Services (EAS).
- Wireless services, including cellular, PCS, and paging.
- In-state long distance services, including prepaid calling card, operator-assisted, collect, calling card and private line.
- Voice over the Internet Protocol (VoIP) service.

During Fiscal Year 2012-13, the NUSF collected $51.2 million, and distributed $48.6 million to telecommunication providers in Nebraska.

As of the beginning of the 2012-13 Fiscal Year, the NUSF balance was $27.3 million. As of June 30, 2013, the balance had increased to $30.3 million. The current balance includes $11.4 million earmarked for the dedicated wireless program and $5.4 million earmarked for the Nebraska Broadband Pilot Program. The earmarked support will be paid as carriers complete projects for which they were awarded funding and submit the proper documentation.

Other State Comparisons

Twenty-one states have state funds specifically dedicated to providing high-cost support and 8 states have funds dedicated to funding intrastate access rate reductions and reform. The percentage assessed by each state varies widely along with the method of assessment. Nebraska's assessment percentage falls near the middle. Alaska has the highest universal service contribution rate of 9.3%, with Oregon at the second highest assessment rate of 8.5%. Kansas has an assessment rate of 6.42%, similar to Nebraska's 6.95% assessment rate. Texas has an assessment rate of 4.3% of revenues.

Some states assess both revenues and long distance minutes, therefore, the simple percentage of revenues assessed does not readily compare with states like Nebraska that assess revenues only. For example, South Carolina assesses approximately 2.5% on revenues, but also assesses $0.063 per minute on long distance calls within the state. Oklahoma assesses 3.14% on revenues and charges anywhere from $0.03 or $0.05 per minute on long distance calls within the state. The assessment rates between states may not be easily compared for other reasons such as the level of basic local service rates charged to customers. In Nebraska, telecommunications companies receiving high-cost universal service support are required to charge a rate of at least $17.50 per month, and if they do not charge a benchmarked rate of $19.95 per month in rural areas, the amount of support they receive from the state fund is reduced. In contrast, Wyoming, a state which assesses only 0.80% of revenues, only provides support to carriers to reduce monthly rates to $31.39. Therefore, rural customers in Wyoming pay more than double the price for local services that their Nebraska neighbors.

Broadband Pilot Program

Purpose

On November 21, 2011, the Commission entered an order establishing the Nebraska Broadband Pilot Program (NEBP). The NEBP was established to provide specific and targeted broadband support to unserved and underserved areas to close the broadband availability gap. Nebraska is one of only four states in the nation with a universal service program to fund broadband deployment, and it provides the second greatest amount of total funding among the states with such programs. NEBP grants are available to regulated wireline, wireless, and unregulated communications providers wishing to participate.

The NEBP was developed through a generic proceeding docketed as NUSF-77. This docket was originally opened on January 26, 2010, to update policies and procedures related to universal service. However, the focus in that proceeding progressed towards investigating whether broadband services should be explicitly supported by the Nebraska universal service program similar to corresponding federal changes. The Commission sought numerous rounds of comments and held several public hearings to determine the legality, the policy and the potential framework of a pilot broadband program. The Commission studied other state broadband grant programs to gather best practices used by these states to quickly and efficiently target areas without sufficient broadband availability.

In its November 21, 2011 Order, the Commission found support should be made available for broadband capital improvement projects. The Commission also determined that any type of facilities-based provider would be eligible to apply for and receive NEBP support. The Commission further created a baseline set of eligibility requirements.

Application Process

NEBP grant recipients must commit to: 1) offer the supported broadband service upon completion of the deployment to all households within the area defined by the application, for a minimum period of 5 years; 2) offer a voice grade service to customers within the service area of the broadband deployment; 3) offer access to emergency services; 4) use NEBP support only for the

purposes intended and which have been approved by the Commission through the application process; 5) offer voice and broadband service at reasonably comparable rates for comparable services in urban areas; 6) fulfill reporting and audit requirements adopted by the Commission for oversight of the NEBP; and 7) abide by all applicable Commission rules, regulations and orders.

Eligible carriers wishing to participate in the NEBP were required to provide broadband project applications to the Commission. Applications must include descriptions and maps of the proposed broadband project plan and area(s) to be served; potential subscribership data; a construction timeline; a budget including a description of how the applicant will meet the minimum 25% matching requirement; financial qualifications; retail pricing data; a commitment to serve the area(s) for a minimum of 5 years; agreement to participate in Nebraska's State Broadband Initiative (SBI) effort; and include an affidavit attesting to the accuracy of the application materials.

The Commission opened the application window for the second year of the NEBP on February 1, 2013. March 1, 2013, was the deadline to submit applications for year-two NEBP broadband support. The Commission's procedures allowed for protests or interventions in the application process. In the second year of the NEBP the Commission also allowed a 30-day negotiation period for carriers to restrict, but not enlarge, an application area in order to reduce areas of overlap. The Commission received applications from sixteen providers: Cambridge Telephone Company, CenturyLink, Consolidated Teleco Inc., Citizens Telecommunications Company of Nebraska d/b/a Frontier, Diode Cable Company, Eastern Nebraska Telephone Company, Glenwood Telecommunications, Inc., Great Plains Communications, N.E. Colorado Cellular d/b/a Viaero Wireless, Nebraska Central Telephone Company, Pierce Telephone Company, Inc., Raicom, Inc., Rock County Telephone Company, Three River Communications, LLC, United States Cellular Corporation, and Windstream Communications of Nebraska. These applications included 60 projects and collectively the applicants requested approximately $16 million in grant funds.

The Commission staff reviewed each application to determine whether it was compliant with the requirements described in the Commission's orders. A procedural schedule was established for release of a staff recommendation on the proposed distribution of funds, the filing of testimony, and a hearing on all applications.

Distribution Methodology

To determine the best use of NEBP Program support in a competitive grant process, the Commission developed a robust scoring system. The scoring methodology gives highest priority to providing broadband service to areas considered to be unserved. Unserved has been defined by the Commission as any area where no facilities-based provider offers broadband, and where Internet connectivity can only be made through dial-up service. Underserved areas are also eligible for broadband support but are given less priority. The Commission has defined underserved as any area where a facilities-based provider offers Internet access at speeds greater than 56K down but not greater or equal to those speeds defined as broadband. Each criterion utilizes relative scoring and therefore ranges in value from zero (0) to one (1). Relative scoring measures a project against all others within the same priority tier. The Commission utilizes Nebraska SBI mapping data to as a starting point for review.

Group Assignment

Using data provided by applicants and other publicly available data resources, the scoring methodology triages all projects into categories, or groups, based on the nature of the area to be served and the total cost of each project. This group assignment is used to create a priority hierarchy, or tier, within which, each project is scored.

Scoring Criteria

Within each tier, the project that best fulfills the objectives of the NEBP Program is awarded the maximum point value and sets the bar for all other projects. Within each priority tier, each project is scored based on the following 6 scoring criteria. Each criterion utilizes relative scoring and therefore ranges in value from zero (0) to one (1). Relative scoring measures a project against all others within the same priority tier.

The formulas below all follow the same basic principle where each criterion equals the percentage of the highest, or lowest, where applicable, amount for that criterion out of all projects within each priority tier.

1) The Service criterion is determined based on the percentage of unserved and underserved area, as determined by the Nebraska SBI mapping data.

   $(\%\ \text{Un/Underserved Area}_i) / \text{Max}(\%\ \text{Un/Underserved Area}_i)$

2) The Value criterion is determined based on the retail end-user rate and the speed of the service to be provided at said rate.

   $\text{Min}(\text{Retail Rate} / \text{Mbps}) / (\text{Retail Rate}_i / \text{Mbps}_i)$

Retail Rate_i is equal to the summation of the residential monthly recurring rate for voice service; the broadband retail monthly recurring charge; and, where applicable, the subscriber line charge (SLC); the nonrecurring broadband activation charge, and the greater of the monthly recurring customer premise equipment (CPE) charge and the nonrecurring CPE charge. All nonrecurring charges were amortized over a period of sixty (60) months at a rate of 0.0% prior to comparison and/or summation.

3) The Scale criterion is based on the total adjusted grant request amount, not including match amounts, the speed of the respective broadband service, and the total number of households. Where applicable, legal expenses; including railroad easement right-of-ways and liability costs; taxes on equipment and installation; and potential liability costs were identified and removed.

   $\text{Min}(\text{Cost} / (\text{Mbps} * \text{HH})) / (\text{Cost}_i / (\text{Mbps}_i * \text{HH}_i))$

4) The Cost criterion is based on the total adjusted grant request amount, not including match amounts, and the total number of households.

$$\text{Min}(\text{Cost} / \text{HH}) / (\text{Cost}_i / \text{HH}_i)$$

5) The Rural criterion is based on the total number of households and the area, in square miles.

$$\text{Min}(\text{HH} / \text{SqMi}) / (\text{HH}_i / \text{SqMi}_i)$$

6) The Scope criterion is based on the total number of households.

$$\text{HH}_i / \text{Max}(\text{HH})$$

Criteria Weights

Scoring criteria results are then weighted and summed by project to determine each project's total score. The assigned weight is the maximum number of points achievable for the criterion's value, limiting the amount each criterion can affect the total score. The weight for each criterion is dependent on all other, as the total weight is constant (100). The assigned weight is a measure of the importance, or value, of each criterion within the scoring methodology and ensures applicants are properly incented to propose projects that best fulfill the objectives of the NEBP Program.

1) The Service criterion weight of twenty-five percent (25%) encourages applications targeting broadband support amounts to unserved and underserved areas.

2) The Value criterion weight of fifteen percent (15%) balances emphasis on the cost to the consumer and the speed of service provided; while also recognizing economies of scale may lead to diminishing returns as speeds begin to exceed consumers' needs.

3) The Scale criterion weight of five percent (5%) recognizes the value of providing higher broadband speeds to a larger number of households at a reasonable cost.

4) The Cost criterion weight of twenty-five percent (25%) encourages applicants to reduce the cost of their proposals and heightens the probability of expanding broadband in Nebraska at an increased rate.

5) The Rural criterion weight of five percent (5%) recognizes the need to consider rural areas of Nebraska, those with a lower number of households per square mile. The Rural criterion, and the associated weight, is reasonable to include as the two criteria, Rural and Service, are not excessively correlated.

6) The Scope criterion weight of twenty-five percent (25%) encourages applicants to provide balanced projects that expand broadband service availability to the greatest number of Nebraskans.

Awarding Grants

Using the results of the scoring system, NEBP Program grant support amounts are assigned based on a project's total score, within each priority tier, and subject to NEBP Program funding availability.

The Commission requires capital expenditures be made prior to any NEBP Program support being provided to an awardee. Grant recipients submit invoices, and additional information for verification as needed, in arrears to the Commission for review. Subsequent to successful review, the Commission provides approved NEBP Program grant support amounts based on invoice cost. If necessary and appropriate, the Commission may require an audit of NEBP Program support as well as verification of broadband speeds, plant improvements, and commitments met.

Consolidation with the Dedicated Wireless Program

On January 15, 2013, the Commission found that the support used for the dedicated wireless fund program should be transitioned over a four-year period into the NEBP. The Commission decided this transition should begin next year during the 2014 calendar year.

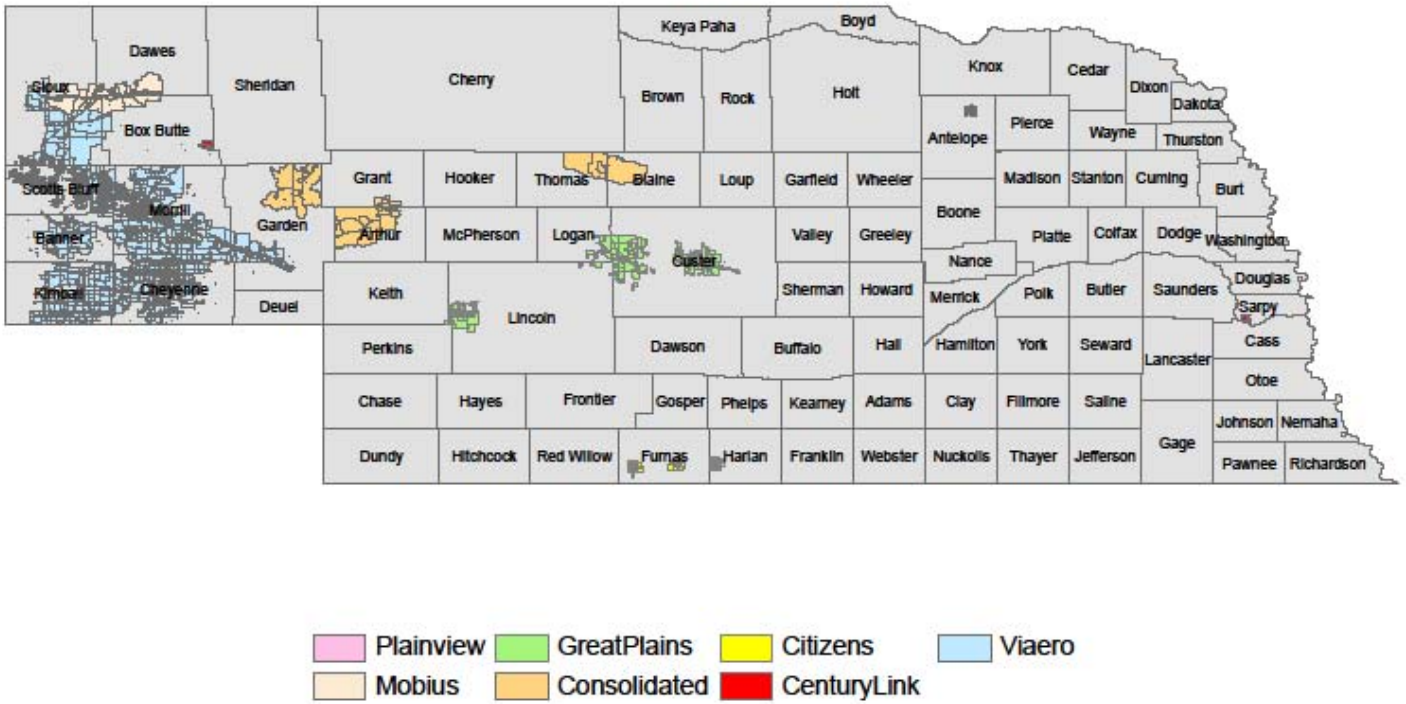
In April 23, 2013, the Commission sought comment on whether it should reconsider its decision to transition this support over four years, and instead, accelerate the combination of these programs. The Commission solicited comments from interested parties on whether to combine both programs in 2014.

After reviewing comments and conducting a hearing, the Commission entered an order on September 4, 2013, finding it should accelerate the consolidation of Dedicated Wireless Fund program support with the NEBP program support. The NEBP will be the surviving program with wireless capital costs being eligible costs under the grant program. Further, the Commission found the 25 percent match requirement should be retained. The consolidation is set to occur in the 2014 calendar year. More information on the Dedicated Wireless Program can be found below.

Nebraska Universal Service Fund

Broadband Grant Locations

Nebraska Broadband Pilot Program



Telehealth Network

Purpose

In September of 2004, the Commission approved funding for the Nebraska Statewide Telehealth Network (NSTN). The NSTN connects 68 rural and critical access hospitals across the state to hub hospitals in Grand Island, Kearney, Lincoln, Norfolk, North Platte, Omaha, and Scottsbluff. The NSTN allows the rural and critical access hospitals to remotely connect to urban facilities that have specialists in many diverse fields including trauma, radiology, and endocrinology. The existence of the NSTN allows rural facilities to provide expanded healthcare services in their communities, saving patients in rural areas the time, cost and inconvenience of traveling long distances for their specialized healthcare needs.

The NSTN also provides a video conference resource for both rural and urban facilities for education, training and administrative meetings, saving substantial amounts of time and expense involved with those activities. Telehealth has become a vital part of healthcare in Nebraska, and the NSTN is a national leader in recognizing and realizing the beneficial impact of a vital telehealth network on rural healthcare services.

Funding

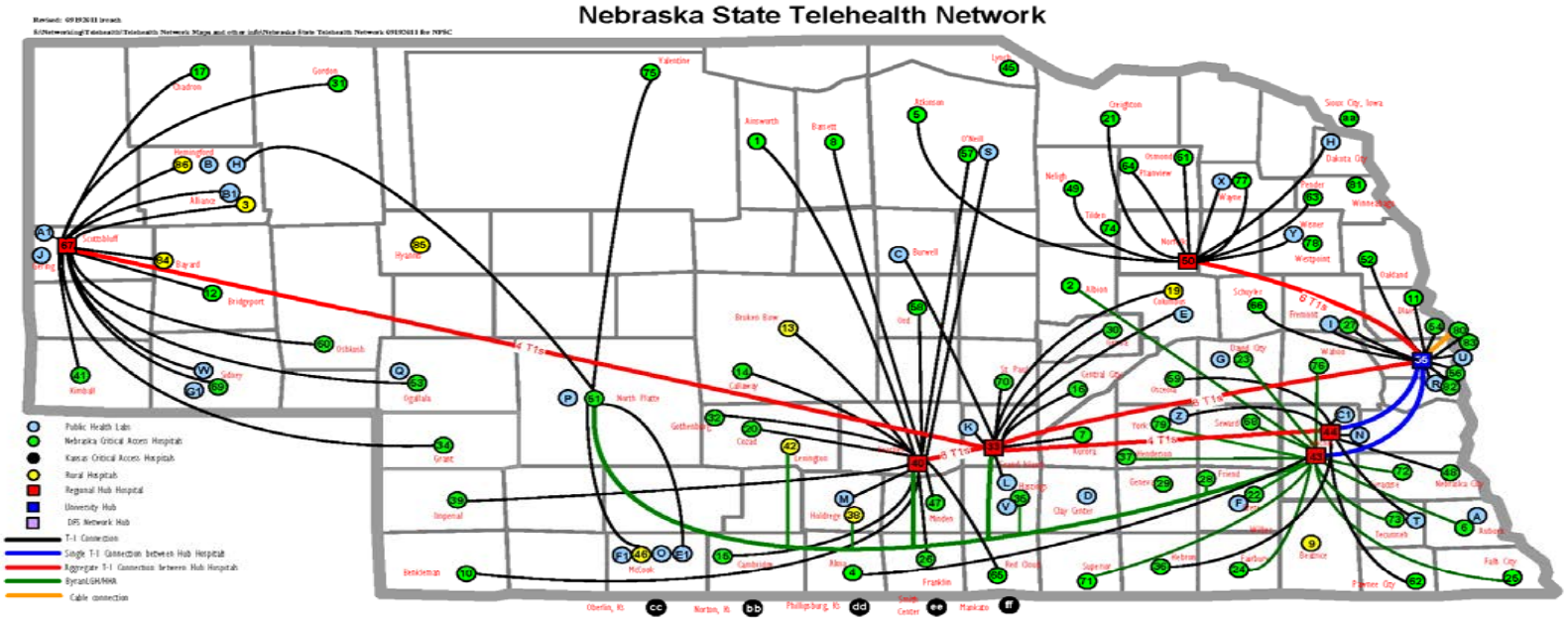
In Fiscal Year 2011-12, the Commission provided more than $570,000 in funding for the NSTN. Since the inception of the NSTN in 2004, the Commission has provided funding to 76 Nebraska hospitals, delivering in excess of $5 million to the NSTN.

In late June 2013, the NSTN filed a request seeking changes to the structure and funding amount allocated to the Nebraska Telehealth Program. In support of its request, the NSTN stated it had been in the process of exploring alternative connectivity structures for the backbone lines to provide redundancy and better reliability to support new technologies. The Commission is considering this request which may lead to additional funding.

Funding for the NSTN is provided to hospitals eligible for NUSF funding pursuant to preapproved funding amounts. The Commission capped total funding to the NSTN at $900,000 per fiscal year. NUSF funding is provided as a supplemental and secondary source to the federal telehealth funding sources. Eligible hospitals and facilities must first avail themselves of federal funding before seeking NUSF funding.

Federal funding to rural hospitals is used to offset the cost differential between urban and rural facilities of acquiring a digital transmission high-capacity link called a T-1 line, which is required to connect to the NSTN. Rural hospitals are further responsible for $100 per month of the monthly provider cost to connect the T-1 line, with the remainder of the monthly service cost is paid NUSF directly to the telecommunications carrier providing the service to the hospital from the NUSF. Telecommunication companies receiving NUSF money for the provision of service to the NSTN are subject to Commission audit requirements to ensure compliance with the NUSF program rules. NUSF also provides funding for necessary components to operate the statewide network, such as routers, firewalls and bridges, which are not eligible for federal telehealth support.

Map of Telehealth Network



Low Income Telephone Assistance Program/Lifeline

Purpose

The Nebraska Telephone Assistance Program or NTAP assists eligible low-income individuals with obtaining and keeping telephone services by lowering monthly telephone service rates. Eligible subscribers receive a monthly discount of $12.75 on their telephone bill, which consists of $9.25 in federal support and $3.50 in NUSF support. NTAP assistance is available for a landline or wireless telephone service.

Eligibility

To qualify for the NTAP, a member of the subscriber's household must participate in one of the following programs:

1) Medicaid;
2) Supplemental Nutrition Assistance Program (SNAP), (formerly known as Food Stamps);
3) Supplemental Security Income (SSI);
4) Federal Public Housing Assistance;
5) Low-Income Home Energy Assistance Program (LIHEAP);
6) Children's Health Insurance Programs (Kids Connection, SAM, MAC, E-MAC);
7) Temporary Assistance to Needy Families (TANF, also known as Aid to Dependent Children in Nebraska); or
8) National School Lunch Program Free Lunch Program;

Recently the FCC also required that all states recognize any subscriber with a household income that is at or below 135% of the poverty level to qualify for NTAP. For more on the FCC reforms, see the FCC Lifeline Reform Order section below.

Only one subscriber per household unit is eligible for NTAP support and each subscriber may only receive support for one telephone line, either wireline or wireless.

Federal support of up to $100 is available to consumers living on tribal lands to reduce the initial connections and line extension charges. Further, eligibility criteria for consumers living in tribal areas have been expanded to include the following additional federal assistance programs:

1) Bureau of Indian Affairs General Assistance;
2) Tribally-administered Temporary Assistance for Needy Families;
3) Head Start (only those meeting its income qualifying standard); or
4) National School Lunch Program's free lunch program.

The Commission has also implemented verification and re-certification processes to ensure participant information is up to date and participants remain eligible for NTAP. The

Commission works with the Department of Health and Human Services (DHHS) and other sources to obtain information about whether an NTAP enrollee continues to qualify for the underlying programs. If the customer is no longer eligible to receive NTAP assistance, the customer is notified and given an opportunity to establish continued eligibility. Those customers that do not respond are removed from NTAP.

Number of Subscribers

Currently, approximately 13,800 Nebraskans are enrolled in the NTAP program and receive support from NUSF. This represents an increase in enrollment of 2% since June 2012. The Commission has completed the re-certification of the entire subscriber base mandated by the FCC for 2012. The Commission is currently working with DHHS to mail pre-approved NTAP applications to persons that are enrolled in Medicaid, SNAP, TANF, LIHEAP or the Children's Health Insurance Program, but not enrolled in the NTAP.

The Commission continues to work with DHHS, agencies for the aging, housing authorities and other agencies and groups across the state to provide eligible subscribers information about NTAP.

Following is a statistical summary of applications processed for recent fiscal years ending June 30. Link Up, the federal program to assist with one-time connection fees was discontinued for areas that are not Tribal lands during the Fiscal Year 2011-2012. Therefore, no applications for this program were processed during the Fiscal Year 2012-2013.

	Fiscal Year Total		Cumulative to Date	
	Total Applications Processed	One-Time Connection Applications	Total Applications Processed	One-Time Connection Applications
FY 08-09	5,713	1,776	70,928	21,989
FY 09-10	9,173	1,400	80,101	23,389
FY 10-11	7,647	1,095	87,748	24,484
FY 11-12	8,525	614	96,273	25,098
FY 12-13	10,716	-	106,989	-

Eligible Telecommunications Carriers (ETCs)

Before carriers can participate in NTAP, they must be approved and designated as an eligible telecommunications carrier. Nebraska currently has 57 ETCs participating in NTAP. The following three companies applied and received ETC designation in 2013. Two are still pending:

C-4413/ NUSF-83 — *In the Matter of the Application of TerraCom, Inc., Oklahoma City, Oklahoma, seeking approval of an expansion of its Lifeline only eligible telecommunications carrier designation to include the Windstream service area.*

By Application filed August 30, 2012, TerraCom, Inc. out of Oklahoma City, Oklahoma, filed an application seeking to expand its designation as a Lifeline only Eligible Telecommunications Carrier to include the Windstream Nebraska, Inc. service area in Nebraska. TerraCom, Inc. was authorized by this Commission on August 7, 2012, to be an ETC for the limited purpose of participating in Lifeline in the CenturyLink service area. The Commission granted the application on October 16, 2012.

C-4528/ NUSF-84 *In the Matter of the Application of GCIA Corp. d/b/a STAND UP WIRELESS seeking designation as an Eligible Telecommunications Carrier in the State of Nebraska for the limited purpose of participating in the Lifeline program.*

On October 12, 2012, Stand Up Wireless filed an application seeking designation as an ETC for the limited purpose of receiving Lifeline and Nebraska Telephone Assistance Program support to serve low-income consumers in Nebraska. Its licensed area includes the areas of Nebraska served by Verizon Wireless and Sprint. Stand Up Wireless proposed to provide a prepaid wireless product offering customers a preset amount of monthly airtime at no charge to the customer and the option to purchase additional airtime in different increments. The Commission held a hearing on February 12, 2013. The Commission entered an order granting the application on March 5, 2013.

C-4550/ NUSF-85 *In the Matter of the Application of Total Call Mobile, Inc., Gardena, California, seeking designation as an Eligible Telecommunications Carrier, for the limited purpose of participating in the lifeline program.*

On December 20, 2012, Total Call Mobile filed an application seeking designation as an ETC for the limited purpose of receiving Lifeline and Nebraska Telephone Assistance Program support to serve low-income consumers in Nebraska. Its licensed area includes the areas of Nebraska served by Sprint. Total Call Mobile proposed to provide a prepaid wireless product offering customers a preset amount of monthly airtime at no charge to the customer and the option to purchase additional airtime in different increments. The Commission held a hearing on August 6, 2013. The application is pending.

C-4571/ NUSF-88 *In the Matter of the Application of Telrite Corporation d/b/a Life Wireless seeking designation as an Eligible Telecommunications Carrier in the State of Nebraska for the limited purpose of participating in the Lifeline program.*

On January 11, 2013, Life Wireless filed an application seeking designation as an ETC for the limited purpose of receiving Lifeline and Nebraska Telephone Assistance Program support to serve low-income consumers in Nebraska. Its licensed area includes the areas of Nebraska served by AT&T. Life Wireless proposed to provide a prepaid wireless product offering customers a preset amount of monthly airtime at no charge to the customer and the option to purchase additional airtime in different increments. The Commission held a hearing on May 7, 2013. The Commission entered an order granting the application on May 29, 2013.

C-4621/ NUSF-89 *In the Matter of the Commission, on its own motion, seeking to conduct an inquiry into the operations of Telrite Communications d/b/a Life Wireless, an Eligible Telecommunications Provider, for the limited purpose of participating in the Lifeline program within the State of Nebraska, for violations of Commission Rules and Regulations regarding Lifeline in Nebraska.*

On July 30, 2013, the Commission entered a Show Cause Order against Life Wireless for violations of Commission rules and regulations regarding the provision of Lifeline service in Nebraska. The violation occurred during an event hosted by a third party contractor of Life Wireless in Omaha, Nebraska, on or around July 12, 2013. The Commission ordered the company to appear before it on August 27, 2013, and demonstrate why the Commission should not revoke Life Wireless's ETC designation for participation in Lifeline and why the Commission should not impose administrative penalties against the company for violation of Commission rules and regulations and Orders. Life Wireless voluntarily ceased operations in Nebraska pending the outcome of the Commission investigation and Show Cause hearing.

FCC Lifeline Reform/2012 Lifeline Order

On January 31, 2012, the FCC issued an order making several changes to the Lifeline program, known in Nebraska as NTAP. Most notably, the FCC eliminated the Link-Up program, which provided a credit of up to $30.00 per subscriber to offset the one-time customer charge for commencing telephone service. Further, the FCC for the first time required all states use the following eligibility criteria for Lifeline:

Subscribers must participate in

1) Medicaid;
2) Supplemental Nutrition Assistance Program (SNAP), formerly known as Food Stamps);
3) Supplemental Security Income (SSI);
4) Federal Public Housing Assistance;
5) Low-Income Home Energy Assistance Program (LIHEAP);
6) Temporary Assistance to Needy Families (TANF)
7) National School Free Lunch Program; or
8) The household must have an income that is at or below 135% of the poverty level.

The FCC did allow States to adopt additional eligibility criteria.

Additionally, the FCC Order required all Lifeline subscribers as of June 1, 2012, to be re-certified by the end of 2012. The re-certifications must not only update subscriber information and verify eligibility, but also requires subscribers to make certifications under penalty of perjury, including that the subscriber is eligible for the benefit and is not already receiving a Lifeline benefit. Further, the subscriber must agree to notify the carrier within 30 days if the subscriber is no longer eligible for Lifeline or moves to a new address, and the subscriber must acknowledge the re-certification obligation, which may result in de-enrollment if not completed.

Dedicated Wireless Program

Purpose

The Commission established a dedicated wireless program to promote access to wireless service in rural areas and continues to accept and review applications for this program on an annual basis. In May 2011, the Commission decided to consider an applicant's commitment to providing universal broadband service coverage as part of the application review process, in a continued effort to encourage the deployment of broadband.

Distribution Methodology

The distribution methodology utilizes a two-step process to determine the eligibility for funding for each proposed wireless tower construction project, and then scores and ranks eligible proposed tower projects to determine which towers will receive funding. The eligibility to receive funding is determined by the out-of-town household density and the households per square mile in the project area. Those proposed towers located in areas with less than 4.5 households per square mile are deemed to be serving high-cost areas and eligible for dedicated wireless program support. In order to provide benefits to the greatest number of households in high-cost areas, eligible tower projects are then ranked for funding from those serving the greatest number of out-of-town households to those serving the least number of out-of-town households. Further, additional proximity rankings are assigned to all eligible tower projects based on the distance from existing tower locations. Together, the two part process determines priority rankings for the proposed tower projects and awards funding to those projects in order of priority.

Funds Distributed

In 2012, the Commission granted support for two applications; N.E. Colorado Cellular d/b/a Viaero Wireless in the amount of $3.7 million and U.S. Cellular in the amount of $1.2 million for cell tower construction. The map on the next page shows the location of towers funded since the inception of the program. For the 2012 calendar year, the Commission allocated $5 million for the dedicated wireless fund program. By the July 1, 2013, deadline for submission of applications, the Commission received requests for wireless support from three carriers: N.E. Colorado Cellular d/b/a Viaero Wireless, Pinpoint Wireless Inc. d/b/a BLAZE Wireless, and U.S. Cellular. These applications are currently being considered by the Commission.

Consolidation with Broadband Pilot Program

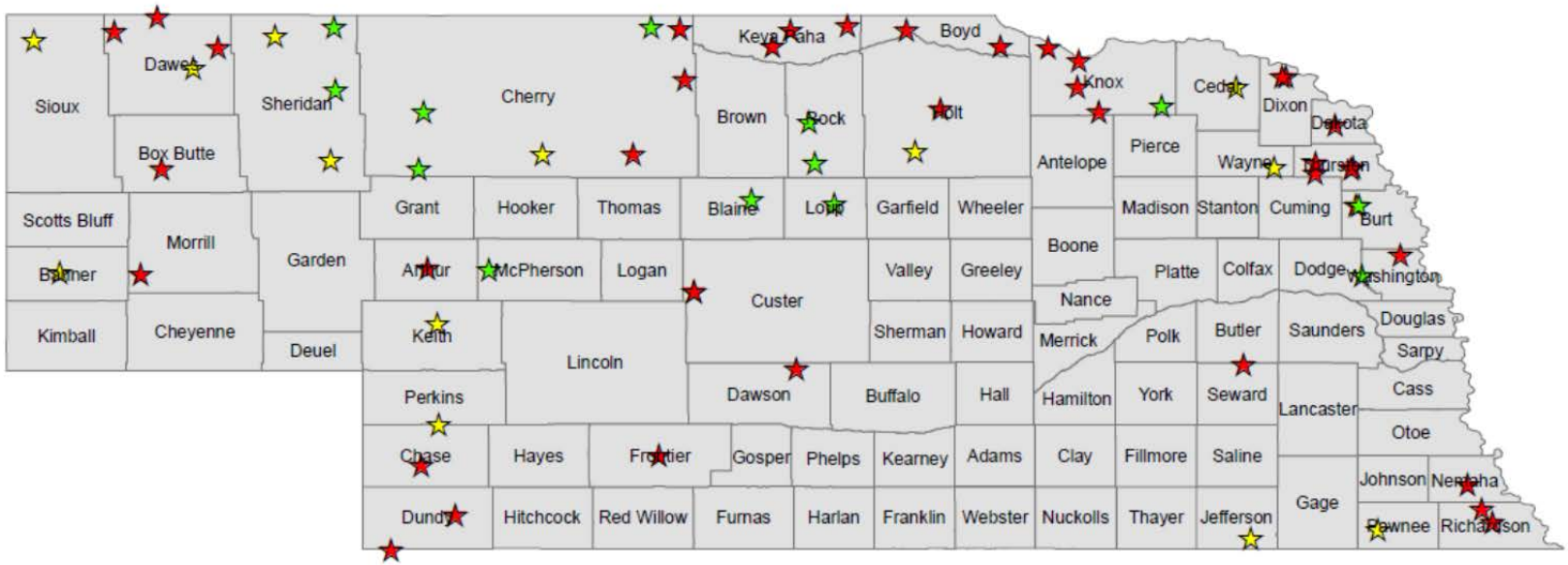
The Commission entered orders in 2013 consolidating the dedicated wireless fund and the broadband pilot program. The dedicated wireless program will be combined with the NEBP beginning in the 2014 calendar year. For more information, see the Nebraska Broadband Pilot Program section above.

Nebraska Universal Service Fund

Supported Tower Locations

Dedicated Wireless Program

(2008 - 2012)



NUSF Supported Towers

★ 2008 - 2010

★ 2011

★ 2012

High Cost Program

Purpose

In 1997, after the Legislature created the NUSF, the Commission opened an investigation and began its quest to meet the universal service obligations of the new environment. Results from the 2000 U.S. Census indicate over 84% of Nebraska's households reside in an area of less than 730 square miles, less than 1% of the landmass of the entire state. Nearly 16% of Nebraska's households are spread over more than 74,000 square miles. Providing service to households in the rural, sparsely populated areas of Nebraska has a significant cost.

In 1999, based on the findings of its investigation, the Commission implemented a multi-year transitional mechanism to reform intercarrier compensation and establish funding from NUSF. The Commission entered an order in 2001 seeking comment on a method to determine permanent funding from NUSF Nebraska ETCs, while accomplishing the policy goals of universal service. In 2002, the Commission adopted goals for the NUSF long-term support mechanism.

The Commission in June 2004 released the NUSF Support Allocation Methodology (SAM), a permanent, long-term, universal service funding mechanism to address the costs of Nebraska's universal service obligations and meet the needs of providing service in high-cost areas. The SAM is an efficient, fair, independently verifiable methodology, utilized by the Commission to allocate the limited amount of universal service support available and direct that support to the highest-cost areas, fulfilling the universal service obligations of Nebraska. The methodology utilizes regression techniques to link forward-looking costs to household density. Once this relationship is determined, results are used to calculate relative need for universal service support. Available universal service support amounts are then allocated to high-cost areas, based on the determination of relative need.

The mechanism is funded via a surcharge applied to revenues derived from retail end user intrastate telecommunication services. The NUSF surcharge is a flat 6.95 percent assessment on all in-state services. The Commission developed the surcharge rate after extensive research and analysis and determined the surcharge should be applied to all in-state services, including local telephone service, local calling features, in-state long distance service, wireless service, and paging service. The surcharge provides the funds necessary to support high-cost areas throughout the State of Nebraska and ensure service remains affordable.

Distribution Methodology

Summary

The SAM allocates NUSF High-Cost Program (NUSF-HCP) support to Nebraska ETCs (NETCs) providing service to high-cost service areas. The SAM provides for the allocation of NUSF-HCP support monies to NETCs based on the cost an NETC incurs in the provisioning of service, relative to the cost of service throughout the state. Thus, an NETC that provides service to many high-cost customers receives a relatively larger allocation of the fund than an NETC that

provides service to fewer high-cost customers or to customers that have only moderate costs. An NETC that serves predominantly low-cost customers should receive little or no support.

The SAM utilizes Census data to create support areas. Then utilizing the Benchmark Cost Proxy Model (BCPM), Version 3.1, and a common set of inputs, to reflect the costs of a most efficient carrier, the SAM calculates household densities and estimates forward-looking loop costs. Loop cost is the per-line measure of the average cost incurred by a telephone company to provide the local loop. Econometric regression techniques are next employed to link forward-looking loop cost to household density. Finally, with the use of the regression results and support area densities, the expected loop cost is calculated for each support area.

The SAM compares expected loop cost, for each support area, to a loop cost benchmark. When expected loop cost exceeds the loop cost benchmark, a base support amount for the support area is calculated. Results are then aggregated. Finally, each NETC's allocation of the NUSF-HCP support is calculated based on relative base support amounts.

The SAM utilizes the cost of the local loop as a proxy for the total cost of service. A high correlation between the cost of provisioning service and the cost of the local loop provides a sufficient mechanism in which to associate more closely the allocation of the NUSF with cost causation. In addition, as the cost of service in high-cost areas is also closely related to the increased cost of providing the "last mile," the SAM ensures the allocation of the NUSF-HCP is one that furthers the goals of the NUSF.

The SAM Process

The SAM utilizes Census block level household data, aggregating the state into multiple urban and rural support areas that reflect cost causation and prevent any arbitrage that may occur if high- and low-cost loops are combined into one support area.

The SAM then develops forward-looking loop costs in each support area. The process for determining forward-looking loop cost occurs in four steps. First, the SAM utilizes the BCPM and a common set of inputs for all companies to calculate household densities and estimate forward-looking loop costs in areas definable by the cost model. Second, regression techniques are then employed to link forward-looking costs to household density for those well-defined areas. Next, densities are determined in the proposed support areas. Finally, with the use of the regression results, expected loop cost as a function of measured density, is calculated for each support area.

The SAM compares expected loop cost, for each support area, to a loop cost benchmark. When, in a particular support area, the loop cost is above the benchmark, the difference between the two is multiplied by the number of households in that support area to obtain the base support amount for that support area. Support area results are aggregated to the NETC level to get the base amount of support for each NETC. Support area results are aggregated to get the statewide base amount. The SAM then calculates each NETC's allocation of the NUSF-HCP. The allocation is calculated as the support area's base amount of the NUSF-HCP, relative to the statewide base amount. For example, suppose an NETC has a base amount of $400,000 and the

statewide base is $40,000,000. That NETC would receive 1/100th of the NUSF-HCP monies available.

Developing Forward-Looking Loop Cost in Each Support Area

Calculating densities and forward-looking loop costs in areas definable by a cost model is the first step in developing loop cost by support area. Forward-looking, or economic cost, is a theoretical measure of cost based on the theories and practices of economics of the industry in question and is useful in analyzing the complexities and variables of a competitive environment. Forward-looking cost is not subject to inefficiency issues, such as gold-plating and historically inefficient decision-making of other cost measures. Rather, a forward-looking measure of cost employs engineering practices, generally available data, and the most efficient technology available, to develop an independently verifiable method of determining cost.

The SAM utilizes version 3.1 of the BCPM for this purpose. The Commission reviewed version 3.1 of the BCPM when making a recommendation to the FCC regarding model choice for federal USF support. After thorough analysis supported by numerous hearings and comment periods, the Commission selected the BCPM as the most desirable model for that purpose. The Commission found the BCPM is a long-run, forward-looking economic cost model that does not impede the provision of advanced services. BCPM utilizes a reasonable method to build plant, reflects the costs an efficient company would incur in providing facilities using the latest and least-cost technologies, designs plant to efficiently serve customers at their existing locations, and employs a scorched node, total element long run incremental cost (TELRIC), forward-looking, state-specific design to determine loop investment.

Further, the Commission found that the BCPM complies with the TELRIC principles adopted by the FCC. In its pricing rules, the FCC determined rates established pursuant to the FCC's forward-looking economic cost-based methodology, called TELRIC, are just, reasonable, and nondiscriminatory. The FCC's forward-looking cost method is a practical variant of the marginal cost principal. Thus, rates set via a TELRIC-compliant method are forward-looking in nature, fair and efficient, resulting in an environment that is more efficient and fair, allowing consumers to make the best buying choices.

Additionally, BCPM allows for analysis at a company-specific, density-zone level. Consequently, the BCPM, and the SAM, lead to more reliable results when allocating the NUSF-HCP. As cost and density are strongly correlated, separating support areas into regions with similar densities becomes important. This aggregation is done on a company-by-company basis. The end result is a data file containing information related to each density zone, for each wire center, for every NETC. It is worth noting that not all NETCs have investment in all zones. Small NETCs may have all of their customers in some of the least dense zones and no customers in the densest zones. In contrast, the state's largest NETCs may have customers in all density zones.

Once information is gathered at the density zone level, it is used to calculate the zone's average density and monthly loop cost. Density is calculated by dividing the aggregate number of households in the zone by the zone's total square miles.

To calculate each zone's average loop cost, investments in each loop equipment-related asset class are converted into annual expense and maintenance costs. The loop equipment-related asset classes include: DLC/DS1s; aerial, underground and buried copper; aerial, underground and buried fiber; and poles. To accomplish this conversion, annual cost factors are applied to investment amounts in each of the various equipment classes. Annual cost factors are then applied to support equipment to get support equipment expenses and maintenance costs. Support equipment classes include motor vehicles, special purpose vehicles, garage work equipment, other work equipment, furniture, office and general-purpose computers.

Analysis estimates, based on BCPM results, approximate that 86% of the cost associated with connecting users to the public switched network is attributable to the local loop, with the remaining costs allocated to switching, interoffice transport, and other non-loop related services.

The annual expense and maintenance costs associated with equipment and support assets are aggregated to obtain zone-wide annual costs. To calculate an annual per-line loop cost, zone-wide annual costs are divided by the number of lines served. Finally, the annual per-line loop cost is divided by twelve (12) to arrive at a monthly per-line loop cost; the per-line cost of developing plant to meet the service needs in a particular area.

Loop Cost Regression Links Cost to Density

The second step in the process determines forward-looking loop cost as a function of household density in each of the BCPM density zones. Regression analysis is used to relate loop cost to household density. Letting $LoopCost_i$ represent the loop cost in area i, and $HouseHoldDensity_i$ represent household density in area i, the functional relationship between the two can be described as:

$$LoopCost_i = \alpha e^{-\beta * HouseHoldDensity_i} . \qquad (1)$$

This functional form allows loop cost to decrease at a decreasing rate as household density increases. Taking natural logarithms of each side, equation (1) becomes:

$$\mathrm{Ln}(LoopCost_i) = \mathrm{Ln}(\alpha) - \beta * HouseHoldDensity_i , \qquad (2)$$

or

$$\mathrm{Ln}(LoopCost_i) = \gamma - \beta * HouseHoldDensity_i , \qquad (3)$$

where LN(•) is the natural log operator and $\gamma = \mathrm{Ln}(\alpha)$.

The specification in equation (3) forces one curve through all of the observations in the sample, while a visual examination of the data seems to indicate that observations for moderately dense areas may lie on different curves than observations for less-dense or very dense areas. Therefore, three dummy variables are created that take values of one when density falls within

certain boundaries and zero otherwise. Let $\overline{D^{Low-Middle}}$ represent the threshold between the low- and the middle-density areas. Similarly, let $\overline{D^{Middle-High}}$ represent the threshold between the middle- and the high-density areas. The following dummy variables are created:

$$D_i^{Low} = \begin{cases} 1 & if \quad HouseHoldDensity_i \le \overline{D^{Low-Middle}} \\ 0 & Otherwise \end{cases}, \tag{4A}$$

$$D_i^{Middle} = \begin{cases} 1 & if \quad \overline{D^{Low-Middle}} < HouseHoldDensity_i \le \overline{D^{Middle-High}} \\ 0 & Otherwise \end{cases}, \tag{4B}$$

$$D_i^{High} = \begin{cases} 1 & if \quad HouseHoldDensity_i > \overline{D^{Middle-High}} \\ 0 & Otherwise \end{cases}. \tag{4C}$$

Using these dummy variables, equation (3) is respecified as:

$$\begin{aligned} \mathrm{Ln}(LoopCost_i) &= D_i^{Low}(\gamma_L - \beta_L * HouseHoldDensity_i) \\ &+ D_i^{Middle}(\gamma_M - \beta_M * HouseHoldDensity_i) \\ &+ D_i^{High}(\gamma_H - \beta_H * HouseHoldDensity_i). \end{aligned} \tag{5}$$

For relatively sparsely populated areas, the intercept is γL and the slope is βL. For medium-density areas, the intercept is γM and the slope is βM. For high-density areas, the intercept is γH and the slope is βH. The optimal values for $\overline{D^{Low-Middle}}$ and $\overline{D^{Middle-High}}$ are the values that maximize the log likelihood function derived from estimation.

Equation (5) is estimated using linear least squares estimation that minimizes the sum of squared errors associated with the coefficient estimates. For a discussion of least squares estimation, the properties of least squares estimators and potential estimation problems see William H. Greene, Econometric Analysis, 5th ed. (Upper Saddle River: Prentice Hall, 2003). Least square estimation has many statistically desirable attributes and is the typical method used to estimate the coefficients in an equation such as (5) above.

Results from least squares estimation of equation (5) are:

$$\begin{aligned} \mathrm{Ln}(LoopCost_i) &= D_i^{Low}(6.4048 - 0.51197 * HouseHoldDensity_i) \\ &+ D_i^{Middle}(4.3937 - 0.040666 * HouseHoldDensity_i) \\ &+ D_i^{High}(3.0198 - 0.00026585 * HouseHoldDensity_i). \end{aligned} \tag{6}$$

Initial statistical tests indicated the error terms generated from estimating equation (5) may be heteroscedastic. Heteroscedasticity occurs when the disturbance variances are not

constant across observations. When this occurs, the values of the least squares coefficient estimates are unbiased, but the variances associated with those coefficient estimates are biased. Unbiasedness of the coefficient estimates indicates the numbers shown in equation (6) are the best estimates of the coefficients in the equation. Biased variances indicate standard techniques cannot be used to test for the statistical significance of the coefficient estimates. Statistical methods are used to correct for heteroscedasticity, leaving the parameter estimates in equation (6) unchanged, but improving the estimated standard errors.

As the dataset sample size seems adequate to accommodate the option, the White Heteroscedasticity Consistent Covariance matrix estimation is used to correct, in the limit, the standard errors initially developed using linear least squares estimation. Correcting for heteroscedasticity, all six coefficient estimates in equation (6) have t-statistics indicating that they are statistically different than zero at the 99 percent confidence level. The equation has an R^2 of 0.95, indicating that 95 percent of the variance in the dependent variable can be explained by the regression equation, or 95 percent of the variation in the natural log of loop cost can be explained by variation in density. Given the statistical significance of the coefficients, it is valid to conclude that equation (5) fits the data better than equation (3).

This piece-wise regression, using three curved segments, explains loop cost as a function of density. One curve explains loop cost in low-density areas. The second explains loop cost in middle-density areas and the last in high-density areas. The segments meet at critical points. The critical lower and upper density levels are 4.5 and 34 households per square mile, respectively, determined as the values that maximize the log likelihood function derived from estimation. For a discussion of log likelihood see William H. Greene, Econometric Analysis, 5th ed. (Upper Saddle River: Prentice Hall, 2003).

The first curved segment indicates loop cost declines rather steeply as density increases from near zero to the first critical point of 4.5 households per square mile. The second curved segment indicates that loop cost declines more moderately as density increases beyond the first critical point and up to the second critical point of 34 households per square mile. The third curved segment indicates that loop cost declines relatively modestly as density increases beyond 34 households per square mile.

In areas below or equal to 4.5 households per square mile, expected loop cost as a function of density is:

$$E\{\mathrm{Ln}(LoopCost_i)\} = 6.4048 - 0.51197\,HouseHoldDensity_i, \qquad (7)$$

or, taking the exponential of both sides of equation (7),

$$E\{LoopCost_i\} = 604.74e^{-0.51197\,HouseHoldDensity_i}. \qquad (8)$$

In areas with household density above 4.5 but less than or equal to 34 households per square mile, expected loop cost as a function of density is:

$$E\{LoopCost_i\} = 80.94e^{-0.040666\,HouseHoldDensity_i}. \qquad (9)$$

In areas where there are greater than 34 households per square mile, the expected loop cost as a function of density is:

$$E\{LoopCost_i\} = 20.49e^{-0.00026585\,HouseHoldDensity_i}. \quad (10)$$

Creating Support Areas

All support areas are created using U.S. Census data. Census blocks are aggregated, by "town" areas and "out-of-town" areas to create the support areas within each wire center and utilized by the SAM. Town areas are identified as cities, villages, or unincorporated areas with 20 or more households and densities greater than 42 households per square mile. Out-of-town areas are the remaining areas that have not been assigned to a town.

Once support areas are created, densities are determined and loop regression results are utilized to calculate the expected forward-looking loop cost in each support area. The expected loop cost is a function of density, as generated from the regression results.

Determining Support-Area Densities

The BCPM-based results link an area's expected loop cost to its density. To use these results, densities in support areas are calculated using U.S. Census household data, by census block. A household is defined as a housing unit; a house, an apartment or other group of rooms, or a single room, when occupied as separate living quarters with direct access from the outside or through a common hall. Census block data is aggregated for each wire center's town and out-of-town support areas, as identified above. Town and out-of-town densities are calculated as households divided by square miles.

Calculating Expected Loop Cost

Loop regression results are used to calculate the expected loop cost in each support area as a function of density.

Determining the Loop Benchmark

Benchmark Base

The Commission adopted residential loop benchmarks for NUSF purposes not including surcharges, such as, but not limited to, the federal subscriber line charge (SLC). The current urban and rural benchmarks are $17.95 and $19.95, respectively. The SAM utilizes the urban benchmark as the base with which to begin construction of a benchmark, applicable and useful to the SAM process, the SAM Benchmark (SAM-BM). SAM-BMs are calculated for each NETC.

Factor Adjustments

Loop Cost Versus Total Cost

As stated above, the loop represents a large majority of the total cost of providing service and is highly correlated with the cost of provisioning service and, therefore, the SAM utilizes the cost of the loop as a proxy for the total cost of service. Thus, an adjustment is needed to translate the benchmark base into an amount on par with the SAM's proxy of total cost.

The SAM adjusts the benchmark base to ensure a common unit base, using a value of 86 percent. As stated above, analysis estimates, based on BCPM results, that approximately 86% of the cost associated with connecting users to the public switched network is attributable to the local loop. This adjustment is applied to all NETCs' SAM-BM in the same manner.

Access Lines Per Household

Using regression analysis techniques, the SAM determines forward-looking loop cost as a function of household density. The SAM's use of households, as defined by the U.S. Census Bureau, implies no explicit support is garnered for business lines or second lines in households, thus focusing NUSF-HCP support to the primary line in each household in high-cost support areas.

However, the benchmark base is a measure of the cost of a single access line. Typically, while the additional outside plant may remain idle, an NETC engineers its network to accommodate multiple access lines per household. Thus, an adjustment must be made for the number of access lines per household. Again, similar to the Loop Cost versus Total Cost adjustment described above, the adjustment ensures unit commonality.

The SAM utilizes a value of 1.15 access lines per household for all NETCs. The Access Lines Per Household factor is calculated as the total number of Nebraska residential access lines divided by the number of Nebraska households requesting service; where households requesting service is equal to the total number of Nebraska households multiplied by the percentage of Nebraska households with telephone service; (734,268 / [665,691 * 96%).

Adder-Adjustments

The following represent additional legitimate revenue sources available to NETCs for recovery of the cost of providing the local loop. As such, adder-adjustments are made to the benchmark base to account for these sources.

Federal Subscriber Line Charge (SLC) Adder-Adjustment

The federal SLC, while differing by amount, is charged ubiquitously by all NETC's. An adder-adjustment is made to the benchmark base to account for revenues recovered through the federal SLC. NETC specific SLC rates are utilized.

Access Adder-Adjustment

In an Order, the Commission determined services, such as access service, are priced at levels that support residential service. The rates for these services that provide implicit support were to be reduced. However, reduction methods differed for rural and non-rural companies. Additionally, the initial access rates, prior to any reductions, differed significantly by company. Thus, the access rates that resulted from the Commission's rate rebalancing order differ by company.

The Access Adder-Adjustment accounts for the differences, due to differing access service rates, in monthly revenues collected from an average residential access line. The Access Adder-Adjustment is NETC-specific in its application.

The Access Adder-Adjustment is calculated, pursuant to rates effective October 1, 2005, for each NETC, as average annual access revenue in excess of annual access revenues had the lowest Nebraska average access rate been charged, stated as a monthly, per-line, amount. Formulaically, the Access Adder-Adjustment is represented as;

$$AccessAdderAdjustment_i = \frac{\left[\frac{AccessRvn_i - \left(NEMinAvgAccessRate * AccessMin_i\right)}{AnnualAccessLines_i}\right]}{12}$$

xDSL Adder-Adjustment

Digital Subscriber Line (DSL) technologies provide a method in which a customer is able to use, the previously idle, high bandwidth portion of the copper local loop. Voice communications are carried, generally, over the 300 to 3,000 Hz range, leaving a large portion of bandwidth, not being employed for voice communications, unused. This unused bandwidth, generally above 20,000 Hz (or 20 KHz), allows a customer to utilize vastly greater speeds resulting in high-speed data transmission rates of up to several million bits per second.

The use of DSL technology allows the digital information to flow directly to the digital device, without a conversion from digital to analog and back again, thus permitting the additional bandwidth capabilities of the copper local loop to be utilized, in an efficient manner. In addition, as voice and data communications are carried over different bandwidth portions of the local loop, a carrier is able to provide voice and data communications, simultaneously, over the same loop.

The provisioning of DSL allows providers to offer high-speed access to telecommunications and information services, over the local loop. The FCC previously determined DSL to be an interstate service and therefore properly tariffed at the federal level. An adder-adjustment is made to the residential loop benchmark to account for loop revenues recovered through the provisioning of DSL service offerings.

The availability of DSL to consumers in all areas of the state, the number of consumers choosing to purchase DSL services, and the amount the DSL service contributes to recover loop

costs and are all utilized in the calculation of the xDSL Adder-Adjustment. Utilizing a DSL availability value of 80 percent, a DSL penetration value of 20 percent, and a DSL loop contribution value of $10, the xDSL Adder-Adjustment is calculated as $1.60 per household. The product of the values; availability, penetration, and contribution, (0.80*0.20*$10) = $1.60. The xDSL Adder-Adjustment is not NETC specific.

SAM Benchmark Calculation

The SAM-BM is then calculated as the NETC-specific product of the benchmark base and the Loop Cost Versus Total Cost adjustment, plus any applicable Adder-Adjustments, adjusted by the Access Lines Per Household factor. The Access Lines Per Household adjustment is applied to the Adder-Adjustments to ensure these adjustments are also stated in terms of households. The SAM-BM is thus represented, formulaically, as:

SAM-BM = [($17.50)*(86.00%)+Adder-Adjustments]*[1.15].

Calculating Support Allocations

If a support area's expected loop cost is below the SAM-BM, the support area's base support amount is zero. However, if a support area's expected loop cost is above the SAM-BM, the difference between the two is multiplied by the number of households in the support area to determine the support area's base amount of NUSF support. Support area results are compared to statewide results to determine the support area's final allocation of NUSF-HCP support.

SAM Support Amounts

The appropriate final allocation, for each support area, is applied to the finite amount of NUSF-HCP support available; to calculate the amount of NUSF-HCP support received by each NETC. Support area results are aggregated to the company level to determine each NETC's NUSF-HCP support amount. The Commission continuously monitors the NUSF surcharge remittance amounts and utilizes econometric regression techniques, historical time-series data, and known outliers, to predict available NUSF-HCP support amounts utilized within the SAM process.

Nebraska Universal Service Fund High-Cost Program Support Adjustments

Once NUSF-HCP support amounts are determined, additional review is performed to ensure NUSF-HCP support does not exceed levels required to recover reasonable costs, nor result in an excessive overall rate-of-return.

To facilitate this review, NETCs are required to annually submit investment, expense, and revenue data, to the Commission, via the NUSF-EARN Form (EARN Form). NETCs have the option of filing the EARN Form on three different jurisdictional level, total company, Nebraska, or supported services jurisdiction. Each NETC can also elect to provide EARN Form data on either a one-year or three-year average. Once selected, an NETC must seek Commission approval to alter the EARN Form jurisdiction level or averaging basis elections. Using agreed-

upon-procedures, independent auditors certify EARN Form amounts to the financial statements of the NETC.

Expense Cap Review

While the EARN Form is subject to a third-party audit, the auditor does not give an opinion as to whether those accounts are appropriate. Therefore, on June 3, 2008, the Commission adopted an expense cap model as an objective tool, appropriate for public accountability, to oversee the use of NUSF-HCP support. The expense cap model employs an objective standard and is utilized to determine the appropriateness of how NUSF-HCP support is used.

The expense cap review includes a mechanism for reviewing expenses that exceed the upper boundary of the expense cap model. The consequence of an NETC falling outside the established boundary may that NUSF-HCP support amounts for that company may be altered.

Methodology

Regression analysis is used to estimate total cost as a function of several regressors; square miles, households, access lines, and total plant-in-service.

Regression results, advanced statistical techniques, and total expenses and total plant-in-service reported on the EARN Form, are used to determine the upper boundary of total cost, an expense cap, for each NETC. All of the coefficients are statistically significant at the 95 percent confidence level using a two-tailed test. The equation has an $\overline{R}^2$=0.99 and the f-statistic is significant at the 99 percent level. The covariance matrix for the parameters of the regression model and the variance of the regression are calculated and utilized to derive the forecast standard deviation for any observation, which, along with the parameter from a standard normal distribution that creates the one sided confidence interval of (0.5-α), is used to determine the upper bound of total costs. Theil's inequality is used to measure how closely the forecast method tracks the actual data.

Should an NETC's total expense amount exceed the expense upper boundary determined by the model, notification is given and an opportunity to provide a written explanation. Should the Commission deem the explanation to be insufficient to justify the reported expenses, a public hearing opportunity is provided. Finally, should the Commission deem it appropriate to alter the EARN Form; an order subject to judicial review will be entered by the Commission.

Federal Universal Service Fund Imputation

On December 19, 2006, the Commission implemented a mechanism to take federal universal service support into account when determining need for NUSF High-Cost Program support, accounting for any mismatch of federal universal service support and cost allocation.

In the event interstate revenues, reported on the EARN Form, exceed interstate costs, the lesser of the federal universal service support, or the amount by which interstate revenues exceed

interstate costs, is imputed into the determination of NUSF support. The imputation amount is added to the EARN Form as additional revenue for the purpose of recovering costs assigned to the state jurisdiction. Only NETCs filing on a Nebraska or supported services jurisdiction may be affected.

Earnings Test

The earnings test utilizes all investment, expense, and revenue data, submitted via the EARN Form, to ensure NUSF-HCP support does not result in earnings that exceed the level required by NETCs to recover costs.

Methodology

All NETCs begin with the population of investment, expense, and revenue data at a total company level, averaged over a three-year or one-year period, depending on the option selected by the individual NETC and approved by the Commission. Data submitted at a total company level should be consistent with the Form-M financial data submission filed for the relevant year.

Total Company Jurisdiction

For those NETCs filing on a total company jurisdiction, no further data is required. Earnings test calculations are performed at the total company level.

State Jurisdiction

NETCs filing on a Nebraska jurisdiction will, additionally, provide investment, expense, and revenue data on an interstate jurisdiction. Interstate amounts are removed from total company amounts prior to the earnings test. Earnings test calculations are performed at the state jurisdiction.

Supported Services Jurisdiction

NETCs filing on a supported services jurisdiction will, in addition to providing total company and interstate jurisdiction data, as described above, will provide investment, expense, and revenue data for all excluded services. Excluded service and interstate amounts are removed from total company amounts prior to the earnings test. An NETC must provide adequate supporting documentation to verify the accuracy of amounts identified as excluded services. Earnings test calculations are performed at the supported services jurisdiction.

Earnings Variance

Subsequent to applicable adjustments to total company data, as noted above, an earnings variance is calculated as total revenue minus total cost, where cost is calculated as the summation of total expense and net income before taxes, based on a cost-of-capital value, directed by the Commission, of 12 percent.

Based on the earnings test, if receipt of an NUSF-HCP support amount determined by the SAM would result in an NETC earning an excessive overall rate-of-return, the NUSF-HCP support amount is reduced to the point at which the earnings variance is equal to zero.

Rural Benchmark Imputation

On December 19, 2006, the Commission implemented the Rural Benchmark Imputation, establishing a rural benchmark of $19.95 and subsequently making an explicit reduction in NUSF-HCP support equal to the difference between the rural benchmark and the urban benchmark with a limitation on a NETC basis of $1.00 per month, per residential access line.

On July 12, 2011, recognizing a trend of increased basic local residential rates above the urban benchmark, the Commission adopted an adjustment to the Rural Benchmark Imputation; imputing the difference between the rural benchmark and an NETC's residential access line rate as of December 31st of the current EARN Form year, with the continued limitation on an NETC basis of $1.00 per month, per residential access line. An NETC's NUSF-HCP support amount is then reduced by the Rural Benchmark Imputation amount, to the extent applicable.

Nebraska Universal Service Fund High-Cost Program Distribution Model

Annually, the Commission updates pertinent data utilized in the NUSF-HCP process, for the most recent year applicable, and releases the NUSF High-Cost Program Distribution Model (DM), for public review. The DM includes results of the SAM and NUSF-HCP support amounts for each NETC for the subsequent payment year, adjusted based on results of the Expense Cap Review, FUSF Imputation, Earnings Test, and Rural Benchmark Imputation, as applicable.

Subsequent to formal approval of the NUSF-HCP annual support amount, support payments are electronically provided to each NETC on a monthly basis.

Funds Distributed

During Fiscal Year 2011-12, $42.7 million was paid in high cost support to Nebraska telecommunication companies. High cost support was distributed to 29 local exchange carriers, and 5 CLECs received ported high cost support. Ported support means the CLECs received the same per-line high cost support as the underlying LEC whose facilities they are reselling for each line they serve. The support received by a CLEC is deducted from the amount of support that the underlying LEC receives in high cost support.

PART IV

Wireless E911 Fund

Overview

New This Year

Now that implementation of enhanced wireless 911 service has been accomplished, the Commission has continued to refine the 911 Support Allocation Methodology (911-SAM) for the Nebraska Wireless E911 Fund with an emphasis toward operations. The Commission has adapted the list of eligible expenses and methods of payments to meet the needs of public safety answering points (PSAPs) and wireless carriers as they evolve. Additionally, the Legislature passed LB 595 tasking the Commission with the conduct of an independent third-party study of the planning, implementation and funding of Next Generation 911. Once complete the report will provide the Legislature with the information needed to shape the future of 911 services in Nebraska.

Purpose

In 2001, the Legislature passed LB 585, authorizing the Commission to create the Nebraska Wireless E911 Fund. The charge of the Wireless E911 Fund was to implement Wireless E911 service across the State of Nebraska. As of 2012, all 93 counties in the state have fully implemented Wireless E911 service with at least one wireless service provider.

Phases & Technologies

In most areas of North America, citizens have at least basic or enhanced 911 service for their wireline phone in their home or workplace. If a jurisdiction has basic 911, the 911 center, or public safety answering point (PSAP), will receive no location or identifying information with the call. This information must be communicated by the calling party to the PSAP. In areas with Enhanced 911, the PSAP will receive location and telephone number information with the 911 call. Having this information allows the PSAP to more quickly dispatch emergency help, even if the caller is not able to communicate their location or the nature of their emergency.

Wireless E911 enables citizens to call 911 on their wireless phones. There are three phases of Wireless E911. The most basic of these is “Wireless Phase 0.” This means that when a person calls 911 from their wireless device, the PSAP in a city or county, possibly up to hundreds of miles away from the caller, may receive the call, but not receive the telephone number of the wireless device or the location of the caller. This presents potentially life threatening issues due to lost response time if caller is unable to speak, doesn't know where they are, doesn’t know their wireless telephone number, or if the call is dropped.

When “Wireless Phase I” 911 has been implemented, a wireless call will come into the PSAP with the wireless device’s telephone number and the location of the wireless cellular tower that received the call. This allows the PSAP to determine the general location of the calling party, usually within a few square miles. This is important in the event the call is dropped. This information may assist PSAP employees in working with the wireless carrier to identify the wireless subscriber’s name.

When “Wireless Phase II” 911 has been implemented by local 911 systems and wireless carriers, it allows the PSAP to receive both the wireless caller's telephone number and their specific location by latitude and longitude.

There are two types of wireless location technologies available to identify the specific location of a wireless caller, network-based or handset-based. Of the carriers offering service in Nebraska, Cricket, Sprint Nextel, US Cellular and Verizon utilize a handset-based solution. AT&T/Cingular, iWireless, Pinpoint Wireless, T-Mobile and Viaero utilize a network-based solution.

When a wireless phone is turned on, whether or not it is in use, it periodically transmits signals to the wireless network so the wireless network knows which cellular towers to deliver calls to if the device is used. With the network-based solution, special radio intercept equipment is installed on cellular towers to accomplish the location task. When a wireless call is placed, the towers can compare signals from any active wireless device and pinpoint the call using triangulation (the difference in time between the arrival of the signal at different receiving stations or by the signal’s angle of arrival at each tower). It takes at least three towers to get an accurate location. This solution is called network-based because the signal measurements and location calculations are performed in the wireless network.

The handset-based solution utilizes a wireless device equipped with Global Positioning System (GPS) equipment that can measure the time of arrival of signals transmitted from GPS satellites in order to calculate its position.

Wireless carriers that use network-based technologies are required to provide location information that is accurate to within 100 meters 67% of the time and accurate within 300 meters 95% of the time. Wireless carriers that use handset-based technologies must provide greater location accuracy, within 50 meters 67% of the time and 150 meters 95% of the time.

Assessment

Effective July 1, 2001, a $.50 surcharge has been collected from each subscriber with a billing address in Nebraska. Wireless carriers remit the surcharge to the Commission 60 days after the last day of the month. Effective January 1, 2013, the surcharge was reduced to $.45 for each subscriber with a billing address in Nebraska. For Fiscal Year 2012-13, the Wireless E911 Fund collected just over $8.0 million. As of July 1, 2013, the balance of the Wireless 911 Fund was approximately $16.6 million.

The Prepaid Wireless Surcharge Act became effective on July 19, 2012. Under this Act, beginning January 1, 2013, each retail seller of prepaid wireless telecommunication services will collect the Wireless 911 surcharges directly from the consumer at the point-of-sale. The amount of the surcharge collected per retail transaction will be based on an annual determination by the Nebraska Department of Revenue utilizing a formula of the amount of prepaid wireless surcharges established by finding the sum of the following:

a. The percentage obtained by dividing the current annual Wireless E911 Surcharge by 50; and
b. The percentage obtained by dividing the amount of the Nebraska TRS Fund Surcharge by 50.

Amounts collected are remitted by retailers to the Department of Revenue. The Department of Revenue will then remit the collected amounts, less administrative costs not to exceed 2%, to the State Treasurer for credit to the Wireless E911 Fund and TRS Fund.

Distribution Methodology

On February 23, 2010, the Commission adopted a permanent funding mechanism, the 911 Support Allocation Methodology (911-SAM), for wireless 911 service pursuant to *Neb. Rev. Stat.* § 86-465 (1)(e). The 911-SAM forecasts the future status of the Enhanced Wireless 911 Fund (Fund) and assists in the allocation of annual support amounts to eligible PSAPs and wireless carriers.

The 911-SAM calculates Fund support amounts for each year forecasted based on the existing balance, reserve levels, pre-existing payment commitments, Fund administration costs, local telephone carrier costs paid on behalf of the PSAPs by the Commission, and surcharge remittance levels. Fund support amounts are allocated utilizing cost proxies.

The 911-SAM derives cost proxy amounts, representing the costs incurred for the provision of wireless enhanced 911 service, for three cost categories; PSAP, Geographic Information Systems (GIS), and wireless carrier. Cost proxy amounts are determined as functions of independent variables and predefined cost inputs. More specifically, PSAP and GIS cost proxy amounts are calculated as functions of population and the wireless carrier cost proxy amount is determined as a function of wireless towers.

Cost category proxy amounts are calculated at a PSAP or county level and aggregated to a statewide level. Statewide cost category proxy amounts are further aggregated to determine a total proxy amount. The 911-SAM then calculates each cost category's allocation of the Fund support amount, calculated as the cost category's statewide cost proxy amount, relative to the total proxy amount.

The 911-SAM further utilizes cost proxy results at a PSAP or county level, to allocate cost category support amounts to each eligible PSAP and wireless carrier. Eligible PSAP support amounts include PSAP and GIS.

Several wireless carriers have chosen not to seek funding. Funding not paid to individual wireless carriers is set aside and made available to wireless carriers via the Wireless Service Provider Grant Program (WSP Grant Program). WSP Grant Program funding is available to all wireless service providers eligible to receive funding, for recovery of other potentially eligible costs incurred in the provision of wireless enhanced 911 service. Such costs may include capital expenses or other one-time costs incurred for the provision of enhanced wireless 911 services but not covered by the recurring funding received on a monthly basis. These funds may not be used

for the construction of towers, administrative costs, or personnel costs. Wireless carriers are required to submit applications to receive WSP Grant Program funds. Only one wireless carrier has applied for WSP Grant Program funds to date.

The 911-SAM has been amended since its original release. It has been converted to operate on a fiscal year running from July 1 to June 30 each year. The 911-SAM now includes an interest calculation and a cap on the WSP Grant Program. Furthermore, amounts attributable to local carrier costs have been separated from other PSAP costs. The Commission adopted further modifications to the 911-SAM in September 2012. These modifications include the phasing out of the WSP grant program over a 5 year transition period and the addition of a PSAP personnel cost module.

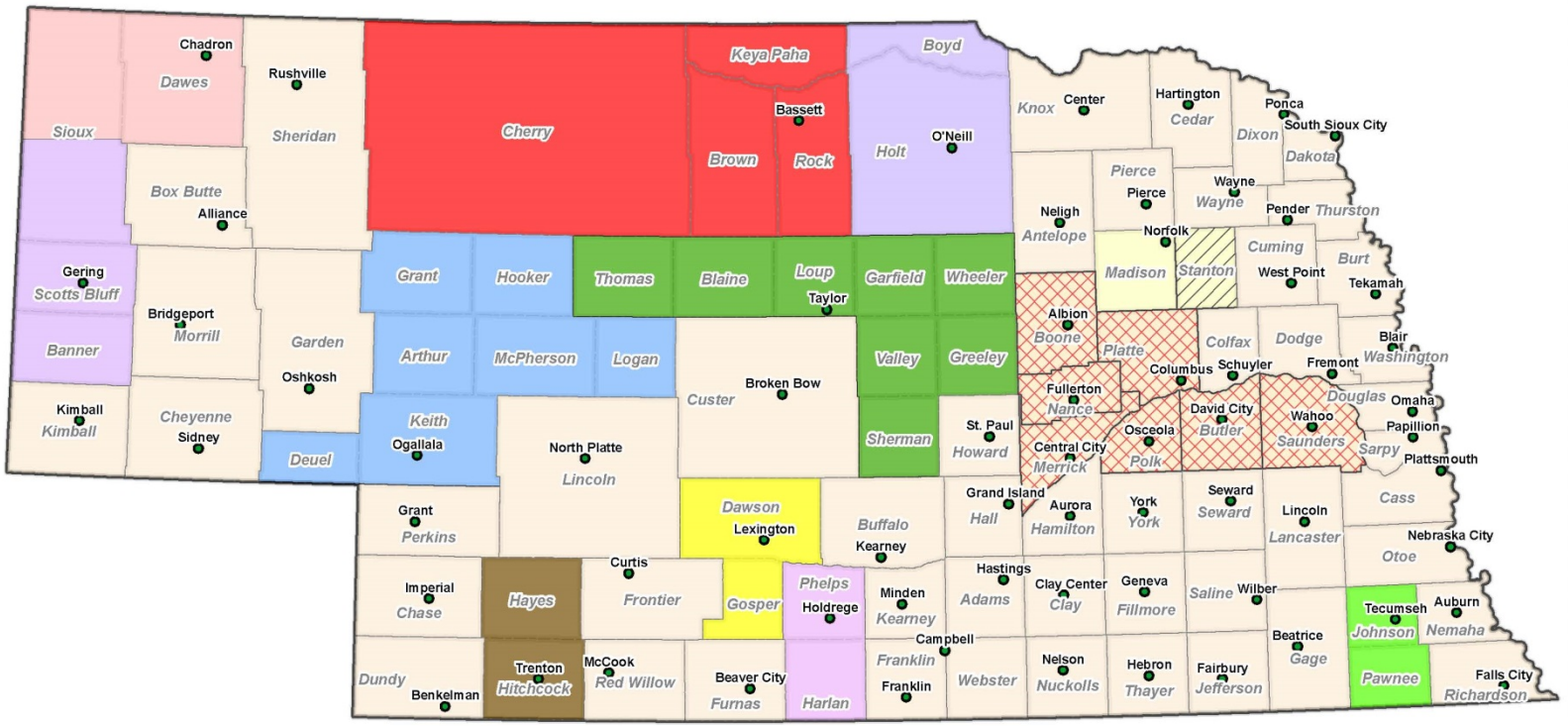
Distributions to PSAPs and WSPs

All Nebraska counties have applied for funding under the 911-SAM cost model for the 2012-2013 fiscal year. Five wireless carriers have applied for funding: Cricket Communications, Sprint, US Cellular and NE Colorado Cellular d/b/a Viaero (Viaero) and Pinpoint Wireless, d/b/a BLAZE Wireless.

During Fiscal Year 2012-13, PSAPs received approximately $5.3 million, wireless carriers received approximately $600,000, and an additional $2.2 million was paid to local carriers on behalf of PSAPs. During Fiscal year 2013-14, it is projected that PSAPs will receive approximately $4.7 million, wireless carriers will receive approximately $600,000, and an anticipated $2.3 million will be paid to local carriers.

Viaero was awarded in excess of $600,000 for the 2011-2012 funding year that has not yet been paid as project has not yet been completed.

PSAPs Funded by Wireless Fund



The Future of Wireless 911

The Commission is currently monitoring the development of Next Generation 911 (NextGen 911) on the national level. NextGen 911 utilizes a broadband network to allow PSAPs to receive text messaging, data, photos, and video from mobile devices. To implement NextGen 911, a robust broadband network to all PSAPs will be required. Upgrades will also be required by wireless service providers. Equipment purchased by PSAPs in recent years has been NextGen capable but may require additional upgrades to implement. Additionally, PSAP personnel will likely require additional training. The requirements and costs for Nebraska have not yet been determined.

During the 2013 legislative session, the Legislature passed LB 595 [2013] directing the Commission to conduct an independent, third-party study to assess the existing enhanced 911 system and the implementation of Next Generation 911 in Nebraska. The study will examine issues related to the necessary infrastructure and equipment at the statewide and local level, GIS data requirements, the impacts to local government and first responders, necessary changes to statutes and funding, and the cost of implementation. Additionally, the third-party contractor will provide information regarding existing initiatives nationally and in other states and make recommendations regarding the planning, implementation, funding and management of a next generation 911 system. A final report is due to the Transportation and Telecommunications Committee of the Legislature in April 2014.

Open Dockets/Issues Investigating

The following is a description of significant pending dockets related to enhanced wireless 911:

911-019/ PI-118 — *In the Matter of the Nebraska Public Service Commission, on its own motion, to implement provisions of LB 1222[2006] and to establish a permanent funding mechanism for wireless enhanced 911 service.*

On June 25, 2013, the Commission issued a proposal for comment to change the method of payment of wireless service providers' allocation and the audit process to allow for quarterly payments rather than monthly; require submission of documentation in support of capital and other expenses as requests for payments were made and to eliminate the need for an audit at the close of the funding year. Comments were filed by one wireless carrier on July 31, 2013 and a hearing was held on August 13, 2013.

911-045/ PI-166 — *In the Matter of the Commission, on its own motion, seeking to investigate the requirements, costs and impact of the implementation of Next Generation 911 in Nebraska relating to the provision of Enhanced Wireless 911 Services.*

The Commission opened this docket to investigate the requirements, costs and impact of the implementation of IP based Next Generation 911 (in Nebraska relating to the provision of Enhanced Wireless 911 Service. A workshop was held on December 6, 2010, during which

representatives from the National Emergency Number Association gave a presentation on the implementation of Next Generation 911. At the time, implementation of Next Generation 911was said to be several years into the future. The Commission is in the process of conducting an independent, third-party study related to the planning and implementation of Next Generation 911 as required by LB 595 [2013]. Information gathered in this docket may be utilized during the study process.

911-050 *In the Matter of the First Petition of N.E. Colorado Cellular, Inc., d/b/a Viaero Wireless for Support from the E-911 Wireless Service Provider (WSP) Grant Program.*

The Commission opened this docket to review applications and award funds under the E-911 Wireless Service Provider Grant Program (WSP Grant Program). Pursuant to the Commission's September 18, 2012, order modifying the permanent funding mechanism, the WSP Grant Program will be phased out over a five (5) year period. On October 14, 2011, an application was received from N.E. Colorado Cellular, Inc. d/b/a Viaero Wireless (Viaero). On March 27, 2012, Viaero was awarded $616,540 in grant funds from the WSP Grant Program.

911-057/ PI-187 *In the Matter of the Commission, on its own motion, seeking to investigate funding for costs for the development of certain Geographical Information Systems Data relating to the provision of Enhanced Wireless 911 Service.*

The Commission opened this docket on December 18, 2012, to seek comment as to whether funding beyond the allocations provided to the PSAPs through the 911-SAM should be made available for the costs to develop a statewide address point layer for GIS data. Written comments were filed and a hearing was held on March 20, 2013. However, the Commission will not take further action on the docket pending the outcome of the Next Generation 911 study.

911-058/ PI-188 *In the Matter of the Commission, on its own motion, seeking to conduct a study to examine issues surrounding the statewide implementation of next-generation 911 funded through the Enhanced Wireless 911 Fund as required by LB 595 [2013].*

The Commission opened this docket on June 4, 2013, in order to conduct an independent third-party study of Next Generation 911 as required by LB 595 [2013]. On July 16, 2013, the Commission issued an RFP for the purpose of selecting a qualified contractor to conduct the study. Responses to the RFP were due by August 16, 2013, and a contract will be awarded on or before September 4, 2013. A final report will be due to the Commission by April 1, 2014, which will be forwarded to the Transportation and Telecommunications Committee of the Legislature.

Wireline 911 Information

The table below is Wireline E911 surcharge information reported to the Commission by local telephone carriers in Nebraska. If specific exchange information is not listed, it is due to the fact that the local telephone carrier did not file the information.

Name of Exchange	Local Exchange Carrier	Monthly Surcharge to be Collected Approved by Jurisdiction	PSAP County/City Surcharge Remitted To	Total Annual Cost	Total Annual Amount Received by Jurisdiction
Adams County	Charter Fiberlink-Nebraska, LLC	$0.75	Adams County	$17,138.25	
Adams County	Granite Telecommunications, LLC	$0.75	Adams County	$363.75	
Holstein	Glenwood Telephone Memb. Corp.	$0.75	Adams County	$1,422.40	
Adams County	Level 3 Communications, LLC	$0.75	Adams County	$109.50	
Glenvil	Windstream	$0.75	Adams County	$181.50	
Hansen	Windstream	$0.75	Adams County	$1,643.25	
Hastings	Windstream	$1.00	Adams County	$71,016.30	
Juniata	Windstream	$0.75	Adams County	$3,219.64	
Kenesaw	Windstream	$0.75	Adams County	$3,299.33	$98,393.92
Antelope County	Granite Telecommunications, LLC	$1.00	Antelope County	$50.00	
Brunswick	Citizens Telecommunications Company of Nebraska	$1.00	Antelope County	$2,081.00	
Clearwater	Northeast Nebraska Telephone Company	$1.00	Antelope County	$3,975.00	
Columbus	Citizens Telecommunications Company of Nebraska	$1.00	Antelope County	$3.00	
Elgin	Great Plains Communications	$1.00	Antelope County	$7,257.27	
Kearney	Citizens Telecommunications Company of Nebraska	$1.00	Antelope County	$4.00	
Madison	Citizens Telecommunications Company of Nebraska	$1.00	Antelope County	$3.00	
Neligh	Citizens Telecommunications Company of Nebraska	$1.00	Antelope County	$11,908.00	
Neligh	NT&T	$0.50	Antelope County	$60.00	
Oakdale	Great Plains Communications	$1.00	Antelope County	$1,578.47	
Orchard	Citizens Telecommunications Company of Nebraska	$1.00	Antelope County	$3,853.00	
Tilden	Citizens Telecommunications Company of Nebraska	$1.00	Antelope County	$770.00	$31,542.74
Arthur	Consolidated Telephone Company, Inc.	$0.60	Arthur County	$1,469.07	
Keystone	Keystone Arthur Telephone CO.	$0.60	Arthur County	$96.00	$1,565.07
Sidney	BullsEye	$0.50	Banner County	$12.00	$12.00
Brewster	Consolidated Telephone Company, Inc.	$1.00	Blaine County	$1,134.93	
Dunning	Consolidated Telephone Company, Inc.	$1.00	Blaine County	$1,277.44	$3,411.99
Purdum	Consolidated Telephone Company, Inc.	$1.00	Blaine County	$999.62	
Albion	Citizens Telecommunications Company of Nebraska	$1.00	Boone County	$14,645.00	
Albion	NT&T	$0.50	Boone County	$144.50	
Boone County	Granite Telecommunications, LLC	$1.00	Boone County	$147.00	
Cedar Rapids	Great Plains Communications	$1.00	Boone County	$3,195.56	
Kearney	Citizens Telecommunications Company of Nebraska	$1.00	Boone County	$6.00	
Newman Grove	Citizens Telecommunications Company of Nebraska	$1.00	Boone County	$176.00	
Petersburg	Great Plains Communications	$1.00	Boone County	$4,121.91	
Primrose	Great Plains Communications	$1.00	Boone County	$882.11	
Saint Edward	Great Plains Communications	$1.00	Boone County	$5,204.57	
Tilden	Citizens Telecommunications Company of Nebraska	$1.00	Boone County	$12.00	
Boone County	Level 3 Communications, LLC	$1.00	Boone County	$265.90	$28,800.55
Alliance	AT&T Communications of the Midwest, Inc.	$0.50	Box Butte County	$8.00	
Alliance	First Communications, LLC	$0.50	Box Butte County	$7.50	$27,967.34

Name of Exchange	Local Exchange Carrier	Monthly Surcharge to be Collected Approved by Jurisdiction	PSAP County/City Surcharge Remitted To	Total Annual Cost	Total Annual Amount Received by Jurisdiction
Alliance	Metropolitan Telecommunications of Nebraska, Inc., d/b/a MetTel	$0.50	Box Butte County	$5.84	
Alliance	NT&T	$0.50	Box Butte County	$1,584.00	
Alliance	OrbitCom, Inc.	$0.50	Box Butte County	$140.50	
Box Butte County	Granite Telecommunications, LLC	$0.50	Box Butte County	$128.50	
Alliance	Charter Fiberlink-Nebraska, LLC	$0.50	Box Butte County	$3,892.98	
Alliance	Allo Communications	$0.50	Alliance PD	$3,729.02	
Alliance	BullsEye	$0.50	Alliance PD	$34.50	
Alliance	Mobius Communications Company	$0.50	Alliance PD	$4,581.80	
Alliance	CenturyLink f/k/a Qwest	$0.50	Alliance PD	$9,606.00	
Hemingford	Hemingford Cooperative Telephone Company	$0.50	Alliance PD	$4,248.70	
Atkinson	NT&T	$1.00	Boyd-Holt Counties	$2,772.00	
Atkinson	CenturyLink f/k/a Qwest	$1.00	Boyd-Holt Counties	$7,979.92	
Bristow	Northeast Nebraska Telephone Company	$1.00	Boyd-Holt Counties	$924.00	
Butte	Northeast Nebraska Telephone Company	$1.00	Boyd-Holt Counties	$3,610.00	
Chambers	K & M Telephone Co.	$1.00	Boyd-Holt Counties	$4,481.61	
Clearwater	Northeast Nebraska Telephone Company	$1.00	Boyd-Holt Counties	$481.00	
Ewing	Great Plains Communications	$1.00	Boyd-Holt Counties	$3,280.37	
Inman	K & M Telephone Co.	$1.00	Boyd-Holt Counties	$1,474.86	$68,592.62
Long Pine	Northeast Nebraska Telephone Company	$1.00	Boyd-Holt Counties	$12.00	
Lynch	Three River Telco	$1.00	Boyd-Holt Counties	$3,659.00	
Naper	Three River Telco	$1.00	Boyd-Holt Counties	$1,772.00	
O'Neill	BullsEye	$1.00	Boyd-Holt Counties	$133.00	
O'Neill	NT&T	$1.00	Boyd-Holt Counties	$4,111.00	
O'Neill	CenturyLink f/k/a Qwest	$1.00	Boyd-Holt Counties	$20,734.08	
Page	Great Plains Communications	$1.00	Boyd-Holt Counties	$1,978.78	
Spencer	Northeast Nebraska Telephone Company	$1.00	Boyd-Holt Counties	$4,245.00	
Spencer	Northeast Nebraska Telephone Company	$1.00	Boyd-Holt Counties	$36.00	
Stuart	Northeast Nebraska Telephone Company	$1.00	Boyd-Holt Counties	$5,029.00	
Holt County	Granite Telecommunications, LLC	$1.00	Holt County	$260.00	
Holt County	Level 3 Communications, LLC	$1.00	Holt County	$92.00	
O'Neil	OrbitCom, Inc.	$1.00	Holt County	$1,527.00	
Ainsworth	AT&T Communications of the Midwest, Inc.	$1.00	Brown County	$9.00	
Ainsworth	AT&T Corp	$1.00	Brown County	$1.50	
Ainsworth	OrbitCom, Inc.	$1.00	Brown County	$132.00	
Ainsworth	Three Rivers Communications	$1.00	Brown County	$9,773.00	
Johnstown	Three River Telco	$1.00	Brown County	$1,343.00	
Long Pine	Northeast Nebraska Telephone Company	$1.00	Brown County	$2,127.00	$13,385.50
Alma	Citizens Telecommunications Company of Nebraska	$0.65	Buffalo County	$1.95	
Amherst	Citizens Telecommunications Company of Nebraska	$0.65	Buffalo County	$1,450.80	
Amherst	NT&T	$0.65	Buffalo County	$31.20	
Buffalo County	Granite Telecommunications, LLC	$0.65	Buffalo County	$427.70	
Elm Creek	Allo Communications	$0.65	Buffalo County	$1.95	
Elm Creek	NT&T	$0.65	Buffalo County	$693.55	
Elm Creek	CenturyLink f/k/a Qwest	$0.65	Buffalo County	$2,088.45	
Franklin	Citizens Telecommunications Company of Nebraska	$0.65	Buffalo County	$1.95	
Gibbon	Nebraska Central Telephone Co.	$0.65	Buffalo County	$5,232.96	
Holdrege	OrbitCom, Inc.	$0.65	Buffalo County	$0.00	
Kearney	BullsEye	$0.65	Buffalo County	$31.20	$116,544.31

Name of Exchange	Local Exchange Carrier	Monthly Surcharge to be Collected Approved by Jurisdiction	PSAP County/City Surcharge Remitted To	Total Annual Cost	Total Annual Amount Received by Jurisdiction
Kearney	Charter Fiberlink-Nebraska, LLC	$0.65	Buffalo County	$24,374.99	
Kearney	Citizens Telecommunications Company of Nebraska	$0.65	Buffalo County	$58,844.15	
Kearney	First Communications, LLC	$0.65	Buffalo County	$0.00	
Kearney	NT&T	$0.65	Buffalo County	$788.45	
Kearney	Windstream Midwest	$0.65	Buffalo County	$8,490.53	
Miller	Citizens Telecommunications Company of Nebraska	$0.65	Buffalo County	$683.80	
Miller	NT&T	$0.65	Buffalo County	$7.80	
Pleasanton	Citizens Telecommunications Company of Nebraska	$0.65	Buffalo County	$2,058.90	
Pleasanton	NT&T	$0.65	Buffalo County	$7.80	
Ravenna	Nebraska Central Telephone Co.	$0.65	Buffalo County	$5,807.11	
Riverdale	Citizens Telecommunications Company of Nebraska	$0.65	Buffalo County	$1,637.35	
Riverdale	NT&T	$0.65	Buffalo County	$15.60	
Shelton	Nebraska Central Telephone Co.	$0.65	Buffalo County	$3,182.97	
Sodtown	Sodtown Telephone Company	$0.65	Buffalo County	$572.00	
Buffalo County	Level 3 Communications, LLC	$0.65	Buffalo County	$111.15	
Burt County	Granite Telecommunications, LLC	$1.00	Burt County	$0.00	
Lyons	HunTel CableVision dba HunTel Communications	$1.00	Burt County	$1,840.00	
Lyons	CenturyLink f/k/a Qwest	$1.00	Burt County	$5,061.70	
Oakland	HunTel CableVision dba HunTel Communications	$1.00	Burt County	$2,753.00	
Oakland	NT&T	$1.00	Burt County	$967.00	
Oakland	CenturyLink f/k/a Qwest	$1.00	Burt County	$6,354.97	
Tekamah	AT&T Communications of the Midwest, Inc.	$1.00	Burt County	$9.00	
Tekamah	AT&T Corp	$1.00	Burt County	$3.00	
Tekamah	First Communications, LLC	$1.00	Burt County	$12.00	
Tekamah	HunTel CableVision dba HunTel Communications	$1.00	Burt County	$6,753.00	
Tekamah	NT&T	$1.00	Burt County	$1,297.00	
Tekamah	OrbitCom, Inc.	$1.00	Burt County	$60.00	
Tekamah	CenturyLink f/k/a Qwest	$1.00	Burt County	$4,813.33	
Burt County	Level 3 Communications, LLC	$1.00	Burt County	$73.00	
Craig	Northeast Nebraska Telephone Co	$1.00	Burt County	$2,621.00	
Decatur	Northeast Nebraska Telephone Co	$1.00	Burt County	$3,428.00	
Oakland	Metropolitan Telecommunications of Nebraska, Inc., d/b/a MetTel	$1.00	City of Oakland	$23.61	$36,069.61
Bellwood	Windstream	$1.00	Butler County	$2,917.73	
Brainard	Windstream	$1.00	Butler County	$3,789.71	$34,368.94
Bruno	Windstream	$1.00	Butler County	$1,867.00	
Butler County	Granite Telecommunications, LLC	$1.00	Butler County	$72.00	
David City	Time Warner Cable Information Services (Nebraska), LLC	$1.00	Butler County	$3,178.45	
David City	Windstream	$1.00	Butler County	$13,813.04	
Dwight	Windstream	$1.00	Butler County	$1,606.67	
Linwood	Northeast Nebraska Telephone Company	$1.00	Butler County	$651.00	
Octavia	Windstream	$1.00	Butler County	$919.00	
Rising City	Windstream	$1.00	Butler County	$2,826.48	
Surprise	Windstream	$1.00	Butler County	$792.00	
Ulysses	Clarks Telecommunications	$1.00	Butler County	$1,895.00	
Butler County	Level 3 Communications, LLC	$1.00	Butler County	$40.86	
Avoca	Windstream	$1.00	Cass County	$1,833.37	
Cass County	Granite Telecommunications, LLC	$1.00	Cass County	$195.00	
Cass County	Level 3 Communications, LLC	$1.00	Cass County	$301.91	
Eagle	Windstream	$1.00	Cass County	$1,651.10	
Elmwood	Windstream	$1.00	Cass County	$3,787.14	
Greenwood	Windstream	$1.00	Cass County	$2,739.19	$65,799.88

Name of Exchange	Local Exchange Carrier	Monthly Surcharge to be Collected Approved by Jurisdiction	PSAP County/City Surcharge Remitted To	Total Annual Cost	Total Annual Amount Received by Jurisdiction
Louisville	Windstream	$1.00	Cass County	$10,828.16	
Murdock	Windstream	$1.00	Cass County	$2,487.70	
Murray	Windstream	$1.00	Cass County	$12,647.48	
Nehawka	Windstream	$1.00	Cass County	$2,029.90	
Plattsmouth	Charter Fiberlink-Nebraska, LLC	$1.00	Cass County	$7,687.81	
Union	Windstream	$1.00	Cass County	$2,824.50	
Weeping Water	Windstream	$1.00	Cass County	$6,896.84	
Ashland	Windstream	$0.50	City of Ashland	$9,889.78	
Belden	Eastern Nebraska Telephone Co.	$1.00	Cedar County	$905.00	
Bloomfield	Great Plains Communications	$1.00	Cedar County	$26.67	
Cedar County	Granite Telecommunications, LLC	$1.00	Cedar County	$110.00	
Cedar County	Ionex Communications North, Inc.	$1.00	Cedar County	$44.00	
Coleridge	Northeast Nebraska Telephone Company	$1.00	Cedar County	$4,600.00	
Crofton	Great Plains Communications	$1.00	Cedar County	$1,655.29	
Dixon-Concord	Northeast Nebraska Telephone Company	$1.00	Cedar County	$196.00	
Hartington	AT&T Communications of the Midwest, Inc.	$1.00	Cedar County	$9.00	
Hartington	AT&T Corp	$1.00	Cedar County	$3.00	
Hartington	First Communications, LLC	$1.00	Cedar County	$0.00	
Hartington	Hartington Telecommunications Co., Inc.	$1.00	Cedar County	$15,135.25	
Laurel	HunTel CableVision dba HunTel Communications	$1.00	Cedar County	$2,026.00	$43,781.28
Laurel	NT&T	$1.00	Cedar County	$1,136.00	
Laurel	CenturyLink f/k/a Qwest	$1.00	Cedar County	$3,739.86	
Obert/Maskell	Northeast Nebraska Telephone Company	$1.00	Cedar County	$776.00	
Randolph	NT&T	$1.00	Cedar County	$1,469.00	
Randolph	OrbitCom, Inc.	$1.00	Cedar County	$562.00	
Randolph	CenturyLink f/k/a Qwest	$1.00	Cedar County	$3,234.14	
Wausa	Great Plains Communications	$1.00	Cedar County	$650.28	
Wynot (Fordyce, St Helena)	Great Plains Communications	$1.00	Cedar County	$6,566.79	
Cedar County	Level 3 Communications, LLC	$1.00	Cedar County	$937.00	
Imperial	Great Plains Communications	$1.00	Chase County	$17,902.42	
Wauneta	Wauneta Telephone Inc.	$1.00	Chase County	$5,717.00	$23,619.42
Cherry	CenturyLink f/k/a Qwest	$1.00	Cherry County	$15,626.00	
Cherry County	Granite Telecommunications, LLC	$1.00	Cherry County	$18.00	
Cherry County	Ionex Communications North, Inc.	$1.00	Cherry County	$378.00	
Cody	Great Plains Communications	$1.00	Cherry County	$2,248.47	
Crookston	Great Plains Communications	$1.00	Cherry County	$948.33	
Kilgore	Great Plains Communications	$1.00	Cherry County	$987.98	
Merriman	Great Plains Communications	$1.00	Cherry County	$1,542.25	
Valentine	Allo Communications	$1.00	Cherry County	$6.00	
Valentine	AT&T Communications of the Midwest, Inc.	$1.00	Cherry County	$9.00	
Valentine	AT&T Corp	$1.00	Cherry County	$3.00	
Valentine	OrbitCom, Inc.	$1.00	Cherry County	$1,217.00	
Woodlake	Great Plains Communications	$1.00	Cherry County	$1,091.39	
Valentine	BullsEye	$1.00	Cherry County	$81.00	$24,156.42
Cheyenne County	Granite Telecommunications, LLC	$1.00	Cheyenne County	$357.00	
Cheyenne County	Ionex Communications North, Inc.	$1.00	Cheyenne County	$432.00	
Dalton	Dalton Telephone Co	$1.00	Cheyenne County	$2,644.00	
Gurley	Dalton Telephone Co	$1.00	Cheyenne County	$1,867.00	
Lodgepole	Dalton Telephone Co	$1.00	Cheyenne County	$2,746.00	
Potter	CenturyLink	$1.00	Cheyenne County	$2,519.00	
Sidney	Allo Communications	$1.00	Cheyenne County	$965.23	
Sidney	AT&T Communications of the Midwest, Inc.	$1.00	Cheyenne County	$18.00	
Sidney	AT&T Corp	$1.00	Cheyenne County	$6.00	$51,045.56

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Sidney	Charter Fiberlink-Nebraska, LLC	$1.00	Cheyenne County	$6,219.93	
Sidney	First Communications, LLC	$1.00	Cheyenne County	$25.00	
Sidney	Metropolitan Telecommunications of Nebraska, Inc., d/b/a MetTel	$1.00	Cheyenne County	$93.40	
Sidney	Mobius Communications Company	$1.00	Cheyenne County	$60.00	
Sidney	NT&T	$1.00	Cheyenne County	$4,201.00	
Sidney	OrbitCom, Inc.	$1.00	Cheyenne County	$1,879.00	
Sidney	CenturyLink f/k/a Qwest	$1.00	Cheyenne County	$27,013.00	
Clay Center	Windstream	$1.00	Clay County	$4,301.10	
Clay County	Granite Telecommunications, LLC	$1.00	Clay County	$141.00	
Clay County	Level 3 Communications, LLC	$1.00	Clay County	$47.93	
Deweese	Windstream	$1.00	Clay County	$1,121.00	
Edgar	Windstream	$1.00	Clay County	$2,786.86	
Fairfield	Windstream	$1.00	Clay County	$2,604.78	
Glenvil	Windstream	$1.00	Clay County	$2,619.10	
Harvard	Windstream	$1.00	Clay County	$4,315.61	
Ong	Windstream	$1.00	Clay County	$531.54	
Sutton	Windstream	$1.00	Clay County	$9,400.12	$27,869.04
Clarkson	NT&T	$1.00	Colfax County	$1,325.00	
Clarkson	CenturyLink f/k/a Qwest	$1.00	Colfax County	$3,013.14	
Colfax County	Granite Telecommunications, LLC	$1.00	Colfax County	$72.00	
Colfax County	Ionex Communications North, Inc.	$1.00	Colfax County	$11,913.00	
Colfax County	Level 3 Communications, LLC	$1.00	Colfax County	$209.00	
Colfax County	MCImetro Access Transmission Services LLC d/b/a Verizon Access Transmission Services	$1.00	Colfax County	$12.00	
Columbus	Citizens Telecommunications Company of Nebraska	$1.00	Colfax County	$391.00	
Howells	NT&T	$1.00	Colfax County	$1,177.00	
Howells	CenturyLink f/k/a Qwest	$1.00	Colfax County	$2,874.32	
Leigh	Citizens Telecommunications Company of Nebraska	$1.00	Colfax County	$3,672.00	
Palmer	Citizens Telecommunications Company of Nebraska	$1.00	Colfax County	$16.00	
Schuyler	AT&T Communications of the Midwest, Inc.	$1.00	Colfax County	$9.00	
Schuyler	AT&T Corp	$1.00	Colfax County	$3.00	
Schuyler	First Communications, LLC	$1.00	Colfax County	$0.00	
Schuyler	NT&T	$1.00	Colfax County	$2,522.00	
Schuyler	OrbitCom, Inc.	$1.00	Colfax County	$130.00	
Schuyler	CenturyLink f/k/a Qwest	$1.00	Colfax County	$19,001.54	
Schuyler	Metropolitan Telecommunications of Nebraska, Inc., d/b/a MetTel	$1.00	City of Schuyler	$105.08	$46,445.08
Bancroft	Great Plains Communications	$1.00	Cuming County	$4,472.05	
Beemer	Great Plains Communications	$1.00	Cuming County	$5,174.95	
Cuming County	Granite Telecommunications, LLC	$1.00	Cuming County	$18.00	
Cuming County	Level 3 Communications, LLC	$1.00	Cuming County	$2,310.00	
West Point	AT&T Communications of the Midwest, Inc.	$1.00	Cuming County	$5.85	
West Point	AT&T Corp	$1.00	Cuming County	$3.00	
West Point	BullsEye	$1.00	Cuming County	$90.00	$45,234.79
West Point	First Communications, LLC	$1.00	Cuming County	$12.00	
West Point	NT&T	$1.00	Cuming County	$3,826.00	
West Point	OrbitCom, Inc.	$1.00	Cuming County	$144.00	
West Point	CenturyLink f/k/a Qwest	$1.00	Cuming County	$18,748.00	
Wisner	Great Plains Communications	$1.00	Cuming County	$10,430.94	
Anselmo	Consolidated Telephone Company, Inc.	$1.00	Custer County	$1,988.19	
Ansley	Nebraska Central Telephone Co.	$1.00	Custer County	$4,568.16	
Arnold	Great Plains Communications	$1.00	Custer County	$5,346.09	
Broken Bow	Allo Communications	$1.00	Custer County	$714.61	
Broken Bow	BullsEye	$1.00	Custer County	$108.00	
Broken Bow	First Communications, LLC	$1.00	Custer County	$0.00	$54,997.57

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Broken Bow	Great Plains Broadband	$1.00	Custer County	$1,346.18	
Broken Bow	OrbitCom, Inc.	$1.00	Custer County	$36.00	
Broken Bow	CenturyLink f/k/a Qwest	$1.00	Custer County	$20,575.00	
Callaway	Great Plains Communications	$1.00	Custer County	$5,125.37	
Comstock	Nebraska Central Telephone Co.	$1.00	Custer County	$1,047.44	
Custer County	Granite Telecommunications, LLC	$1.00	Custer County	$105.00	
Custer County	Level 3 Communications, LLC	$1.00	Custer County	$114.00	
Mason City	Nebraska Central Telephone Co.	$1.00	Custer County	$1,717.52	
Merna	Consolidated Telephone Company, Inc.	$1.00	Custer County	$3,316.19	
Oconto	Great Plains Communications	$1.00	Custer County	$1,573.81	
Sargent	Nebraska Central Telephone Co.	$1.00	Custer County	$4,336.01	
Broken Bow	NT&T	$1.00	Custer County	$2,807.00	
Miller	Citizens Telecommunications Company of Nebraska	$1.00	City of Broken Bow	$4.00	
Sumner	Citizens Telecommunications Company of Nebraska	$1.00	City of Broken Bow	$169.00	
Dakota City	First Communications, LLC	$1.00	Dakota County	$49.00	
Dakota City/ South Sioux City	CenturyLink f/k/a Qwest	$1.00	Dakota County	$21,172.71	
Dakota County	Granite Telecommunications, LLC	$1.00	Dakota County	$564.00	
Dakota County	Ionex Communications North, Inc.	$1.00	Dakota County	$5,061.00	
Dakota County	Long Lines Siouxland	$1.00	Dakota County	$17,119.00	
Dakota County	MCImetro Access Transmission Services LLC d/b/a Verizon Access Transmission Services	$1.00	Dakota County	$8.00	
Dakota County	Level 3 Communications, LLC	$1.00	Dakota County	$9,383.00	
Emerson	HunTel CableVision dba HunTel Communications	$1.00	Dakota County	$912.00	
Emerson	NT&T	$1.00	Dakota County	$914.00	
Emerson	CenturyLink f/k/a Qwest	$1.00	Dakota County	$2,098.66	
Homer	NT&T	$1.00	Dakota County	$675.00	$76,570.60
Homer	CenturyLink f/k/a Qwest	$1.00	Dakota County	$1,423.63	
Jackson-Hubbard	Northeast Nebraska Telephone Company	$1.00	Dakota County	$6,230.00	
South Sioux City	OrbitCom, Inc.	$1.00	Dakota County	$177.00	
South Sioux City	AT&T Communications of the Midwest, Inc.	$1.00	Dakota County	$207.00	
South Sioux City	AT&T Corp	$1.00	Dakota County	$24.05	
South Sioux/Dakota City	FiberComm, L.C.	$1.00	Dakota County	$8,010.55	
South Sioux City	McLeod USA Telecommunications Services/Paetec Business Services	$1.00	Dakota County	$119.00	
South Sioux City	NT&T	$1.00	Dakota County	$2,327.00	
Waterbury	Northeast Nebraska Telephone Company	$1.00	Dakota County	$96.00	
Chadron	First Communications, LLC	$1.00	Dawes County	$0.00	
Chadron	NT&T	$1.00	Dawes County	$2,851.00	
Chadron	OrbitCom, Inc.	$1.00	Dawes County	$197.00	
Crawford	NT&T	$1.00	Dawes County	$1,709.00	
Dawes County	Granite Telecommunications, LLC	$1.00	Dawes County	$353.00	
Dawes County	Ionex Communications North, Inc.	$1.00	Dawes County	$48.00	
Chadron	Allo Communications	$1.00	Chadron PD	$360.39	
Chadron	Great Plains Broadband	$1.00	Chadron PD	$7,091.52	
Chadron	Mobius Communications Company	$1.00	Chadron PD	$2,091.92	
Chadron	CenturyLink f/k/a Qwest	$1.00	Chadron PD	$19,838.49	
Chadron/Crawford	BullsEye	$1.00	Chadron PD	$76.00	
Crawford	Allo Communications	$1.00	Chadron PD	$43.13	
Crawford/ Whitney	Mobius Communications Company	$1.00	Chadron PD	$1,744.11	
Crawford/ Whitney	CenturyLink f/k/a Qwest	$1.00	Chadron PD	$4,137.29	
Harrison	Allo Communications	$1.00	Chadron PD	$56.07	
Harrison	Mobius Communications Company	$1.00	Chadron PD	$344.68	
Harrison	CenturyLink f/k/a Qwest	$1.00	Chadron PD	$1,109.73	$42,051.32

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Cozad	Cozad Tel Co.	$1.00	Dawson County	$20,924.00	
Dawson County	Granite Telecommunications, LLC	$1.00	Dawson County	$512.00	
Dawson County	Ionex Communications North, Inc.	$1.00	Dawson County	$2,640.00	
Dawson County	Level 3 Communications, LLC	$1.00	Dawson County	$41.00	
Eddyville	Great Plains Communications	$1.00	Dawson County	$898.07	
Elwood	NT&T	$1.00	Dawson County	$1,393.00	
Lexington	Allo Communications	$1.00	Dawson County	$248.76	
Lexington	AT&T Communications of the Midwest, Inc.	$1.00	Dawson County	$17.00	
Lexington	AT&T Corp	$1.00	Dawson County	$3.00	
Lexington	BullsEye	$1.00	Dawson County	$12.00	
Lexington	Charter Fiberlink-Nebraska, LLC	$1.00	Dawson County	$6,062.94	
Lexington	First Communications, LLC	$1.00	Dawson County	$12.00	$82,010.40
Lexington	NT&T	$1.00	Dawson County	$4,833.00	
Lexington	OrbitCom, Inc.	$1.00	Dawson County	$1,007.00	
Lexington	CenturyLink f/k/a Qwest	$1.00	Dawson County	$38,027.00	
Overton	Arapahoe Telephone Co.	$1.00	Dawson County	$3,815.63	
Elwood	BullsEye	$1.00	Dawson County	$24.00	
Miller	Citizens Telecommunications Company of Nebraska	$1.00	Village of Sumner (Dawson)	$19.00	
Sumner	Citizens Telecommunications Company of Nebraska	$1.00	Village of Sumner (Dawson)	$1,521.00	
Deuel County	Granite Telecommunications, LLC	$1.00	Deuel County	$78.00	$78.00
Allen	Northeast Nebraska Telephone Company	$1.00	Dixon County	$3,270.00	
Dixon County	Granite Telecommunications, LLC	$1.00	Dixon County	$0.00	
Dixon-Concord	Northeast Nebraska Telephone Company	$1.00	Dixon County	$2,768.00	
Martinsburg	Northeast Nebraska Telephone Company	$1.00	Dixon County	$920.00	
Newcastle	Northeast Nebraska Telephone Company	$1.00	Dixon County	$3,589.00	
Obert/Maskell	Northeast Nebraska Telephone Company	$1.00	Dixon County	$654.00	
Ponca	Great Plains Communications	$1.00	Dixon County	$7,139.36	
Wakefield	HunTel CableVision dba HunTel Communications	$1.00	Dixon County	$1,582.00	
Wakefield	CenturyLink f/k/a Qwest	$1.00	Dixon County	$6,155.00	
Waterbury	Northeast Nebraska Telephone Company	$1.00	Dixon County	$918.00	$26,995.36
Dodge County	Granite Telecommunications, LLC	$1.00	Dodge County	$1,474.00	
Dodge County	McLeod USA Telecommunications Services/Paetec Business Services	$1.00	Dodge County	$107.00	
Dodge County	Level 3 Communications, LLC	$1.00	Dodge County	$257.00	
Fremont	AT&T Communications of the Midwest, Inc.	$1.00	Dodge County	$470.00	
Fremont	AT&T Corp	$1.00	Dodge County	$75.00	
Fremont	First Communications, LLC	$1.00	Dodge County	$110.00	
Fremont	Time Warner Cable Information Services (Nebraska), LLC	$1.00	Dodge County	$25,642.00	
Fremont	Ionex Communications North, Inc.	$1.00	City of Fremont	$51,900.00	
Dodge	Trans National Communications International, Inc.	$1.00	City of Fremont	$146.00	
Fremont	MCImetro Access Transmission Services LLC d/b/a Verizon Access Transmission Services	$1.00	City of Fremont	$17.00	
Fremont	OrbitCom, Inc.	$1.00	City of Fremont	$253.00	$210,417.68
Dodge	Great Plains Communications	$1.00	Fremont PD	$6,156.78	
Fremont	BullsEye	$1.00	Fremont PD	$48.00	
Fremont	HunTel CableVision dba HunTel Communications	$1.00	Fremont PD	$39.00	
Fremont	NT&T	$1.00	Fremont PD	$7,920.00	

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Fremont	CenturyLink f/k/a Qwest	$1.00	Fremont PD	$82,379.00	
Fremont	Windstream Midwest	$1.00	Fremont PD	$5,764.40	
Fremont, Fullerton & O'Neill	Metropolitan Telecommunications of Nebraska, Inc., d/b/a MetTel	$1.00	Fremont PD	$552.70	
Hooper (Dodge Co.)	Hooper Telephone Company	$1.00	Fremont PD	$7,207.04	
Hooper (Washington Co.)	Hooper Telephone Company	$1.00	Fremont PD	$685.41	
North Bend	Great Plains Communications	$1.00	Fremont PD	$7,712.73	
Scribner	Great Plains Communications	$1.00	Fremont PD	$6,478.63	
Snyder	Great Plains Communications	$1.00	Fremont PD	$3,018.64	
Uehling (Burt Co.)	Hooper Telephone Company	$0.75	Fremont PD	$36.00	
Uehling (Cuming Co.)	Hooper Telephone Company	$0.75	Fremont PD	$52.37	
Uehling (Dodge Co.)	Hooper Telephone Company	$1.00	Fremont PD	$1,915.98	
Bennington	CenturyLink f/k/a Qwest	$1.00	Douglas County	$2,316.58	
Council Bluffs	Windstream	$0.50	Douglas County	$144.00	
Douglas County	Granite Telecommunications, LLC	$0.50	Douglas County	$15,722.50	
Douglas County	Ionex Communications North, Inc.	$0.50	Douglas County	$799,992.00	
Elkhorn/ Waterloo	CenturyLink f/k/a Qwest	$1.00	Douglas County	$7,441.81	
Elkhorn/Omaha	BullsEye	$0.50	Douglas County	$1,725.50	
Fremont	Windstream Midwest	$0.50	Douglas County	$13.00	
Gretna and Valley	Metropolitan Telecommunications of Nebraska, Inc., d/b/a MetTel	$0.50	Douglas County	$1,894.50	
Omaha	AT&T Communications of the Midwest, Inc.	$0.50	Douglas County	$12,900.00	
Omaha	AT&T Corp	$0.50	Douglas County	$6,834.00	
Omaha	ComTech21	$0.50	Douglas County	$6.00	
Douglas County	Cox	$0.50	Douglas County	$180,398.50	
Omaha	First Communications, LLC	$0.50	Douglas County	$141.00	
Omaha	France Telecom Corporate Solutions	$0.50	Douglas County	$11.00	
Omaha	MCImetro Access Transmission Services LLC d/b/a Verizon Access Transmission Services	$0.50	Douglas County	$3,168.00	
Omaha	McLeod USA Telecommunications Services/Paetec Business Services	$0.50	Douglas County	$7,783.00	
Omaha	NOS Communications, Inc.	$0.50	Douglas County	$12.00	$1,920,844.32
Omaha	NT&T	$0.50	Douglas County	$5,432.00	
Omaha	OrbitCom, Inc.	$0.50	Douglas County	$644.00	
Omaha	PNG Telecommunications, Inc., d/b/a PowerNet Global	$0.05	Douglas County	$6.50	
Omaha	Sprint Communications CO LP	$0.50	Douglas County	$759.00	
Omaha	TCG Omaha	$0.50	Douglas County	$42,088.00	
Omaha	Windstream Midwest	$0.50	Douglas County	$25,567.82	
Omaha	XO Communications	$0.50	Douglas County	$283.50	
Omaha	Cox	$0.50	Douglas County	$449,033.00	
Omaha	QuantumShift Communications, Inc.	$1.00	City of Omaha	$18.00	
Omaha/ Ralston/ Boys Town	CenturyLink f/k/a Qwest	$1.00	Douglas County	$298,418.41	
Omaha/Douglas County	Level 3 Communications, LLC	$0.50	Douglas County	$9,116.00	
Unincorporated	CenturyLink f/k/a Qwest	$1.00	Douglas County	$44,207.65	
Valley	CenturyLink f/k/a Qwest	$1.00	Douglas County	$3,871.05	
Omaha	Trans National Communications International, Inc.	$1.00	Douglas County	$896.00	
Benkelman	Benkelman	$1.00	Dundy County	$11,859.00	
Haigler	Hartman Telephone Exchanges, Inc.	$1.00	Dundy County	$2,039.00	
Wauneta	Wauneta Telephone Inc.	$1.00	Dundy County	$620.00	$14,518.00
Exeter	Windstream	$1.00	Fillmore County	$4,300.30	
Fairmont	Windstream	$1.00	Fillmore County	$3,313.41	
Fillmore County	Granite Telecommunications, LLC	$1.00	Fillmore County	$141.00	
Fillmore County	Level 3 Communications, LLC	$1.00	Fillmore County	$58.92	
Geneva	AT&T Communications of the Midwest, Inc.	$1.00	Fillmore County	$36.00	$30,853.05

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Geneva	AT&T Corp	$1.00	Fillmore County	$12.00	
Geneva	Windstream	$1.00	Fillmore County	$14,941.65	
Grafton	Windstream	$1.00	Fillmore County	$1,177.37	
Milligan	Windstream	$1.00	Fillmore County	$2,673.93	
Ohiowa	Windstream	$1.00	Fillmore County	$1,294.00	
Shickley	Windstream	$1.00	Fillmore County	$2,904.47	
Bloomington	Citizens Telecommunications Company of Nebraska	$1.00	Franklin County	$961.00	
Franklin	Citizens Telecommunications Company of Nebraska	$1.00	Franklin County	$7,155.00	
Franklin	NT&T	$1.00	Franklin County	$16.00	
Franklin County	Granite Telecommunications, LLC	$1.00	Franklin County	$9.00	
Hildreth	Citizens Telecommunications Company of Nebraska	$1.00	Franklin County	$2,419.00	$11,565.00
Naponee	Citizens Telecommunications Company of Nebraska	$1.00	Franklin County	$1,005.00	
Curtis	Curtis Telephone Company	$1.00	Frontier County	$6,547.14	
Eustis	Consolidated Telecom, Inc.	$1.00	Village of Eustis	$3,972.72	$10,519.86
Franklin City	Level 3 Communications, LLC	$1.00	Village of Franklin	$57.08	
Franklin	Granite Telecommunications, LLC	$1.00	Village of Franklin	$24.00	$81.08
Farnam	Arapahoe Telephone Co.	$1.00	Frontier County	$1,917.63	
Indianola	Great Plains Communications	$1.00	Frontier County	$304.00	$2,221.63
Arapaho	Arapahoe Telephone Co.	$1.00	Furnas County	$8,076.36	
Beaver City	BullsEye	$1.00	Furnas County	$3.00	
Beaver City	Citizens Telecommunications Company of Nebraska	$1.00	Furnas County	$3,609.00	
Beaver City	NT&T	$1.00	Furnas County	$103.00	
Cambridge	Cambridge Telephone Co.	$1.00	Furnas County	$10,090.00	
Edison	Citizens Telecommunications Company of Nebraska	$1.00	Furnas County	$1,431.00	
Edison	NT&T	$1.00	Furnas County	$24.00	
Edison	Pinpoint Communications, Inc.	$1.00	Furnas County	$12.00	
Furnas County	Granite Telecommunications, LLC	$1.00	Furnas County	$77.00	
Furnas County	Ionex Communications North, Inc.	$1.00	Furnas County	$108.00	
Hendley	Arapahoe Telephone Co.	$1.00	Furnas County	$494.54	
Holbrook	Arapahoe Telephone Co.	$1.00	Furnas County	$1,811.73	
Oxford	NT&T	$1.00	Furnas County	$350.00	
Oxford	Pinpoint Communications, Inc.	$1.00	Furnas County	$1,134.00	
Oxford	CenturyLink f/k/a Qwest	$1.00	Furnas County	$1,677.00	
Stamford	Citizens Telecommunications Company of Nebraska	$1.00	Furnas County	$180.00	
Wilsonville	Citizens Telecommunications Company of Nebraska	$1.00	Furnas County	$931.00	
Wilsonville	Pinpoint Communications, Inc.	$1.00	Furnas County	$52.00	$30,163.63
Adams	Windstream	$1.00	Gage County	$4,425.00	
Barneston	Windstream	$1.00	Gage County	$1,313.30	
Claytonia	Windstream	$1.00	Gage County	$1,768.00	
Cortland	Windstream	$1.00	Gage County	$3,855.63	
Diller	Diller Telephone Co	$1.00	Gage County	$392.00	
Filley	Windstream	$1.00	Gage County	$1,556.53	
Gage County	Granite Telecommunications, LLC	$1.00	Gage County	$6.00	
Harbine	Diller Telephone Co	$1.00	Gage County	$157.00	
Liberty	Windstream	$1.00	Gage County	$1,274.00	
Odell	Diller Telephone Co	$1.00	Gage County	$3,089.00	
Pickrell	Windstream	$1.00	Gage County	$2,302.00	
Virginia	Diller Telephone Co	$1.00	Gage County	$772.00	
Beatrice	Charter Fiberlink-Nebraska, LLC	$1.00	City of Beatrice	$11,897.26	
Beatrice	Granite Telecommunications, LLC	$1.00	City of Beatrice	$358.00	$98,950.51
Beatrice	Windstream	$1.00	City of Beatrice	$57,960.30	
Beatrice	Level 3 Communications, LLC	$1.00	City of Beatrice	$58.84	
Wymore	Granite Telecommunications, LLC	$1.00	Village of Wymore	$12.00	
Wymore	Windstream	$1.00	Village of Wymore	$7,753.65	

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Garden County	Granite Telecommunications, LLC	$1.00	Garden County	$94.00	
Oshkosh	CenturyLink	$1.00	Garden County	$10,871.00	$10,965.00
Elwood	Allo Communications	$1.00	Gosper County	$19.00	
Elwood	AT&T Communications of the Midwest, Inc.	$1.00	Gosper County	$9.00	
Elwood	AT&T Corp	$1.00	Gosper County	$3.00	
Elwood	Charter Fiberlink-Nebraska, LLC	$1.00	Gosper County	$377.43	
Elwood	Metropolitan Telecommunications of Nebraska, Inc., d/b/a MetTel	$1.00	Gosper County	$12.67	
Gosper County	Granite Telecommunications, LLC	$1.00	Gosper County	$33.00	$454.10
Gothenburg	Allo Communications	$1.00	Gothenburg PD	$342.80	
Gothenburg	Granite Telecommunications, LLC	$1.00	City of Gothenburg	$108.00	$450.80
Ashby	Consolidated Telephone Company, Inc.	$1.00	Grant County	$795.66	
Bingham	Consolidated Telephone Company, Inc.	$1.00	Grant County	$375.89	
Hyannis	Consolidated Telephone Company, Inc.	$1.00	Grant County	$3,601.19	
Whitman	Consolidated Telephone Company, Inc.	$1.00	Grant County	$1,222.16	$5,994.90
Greeley	Citizens Telecommunications Company of Nebraska	$1.00	Greeley County	$2,513.00	$2,513.00
Aurora	Hamilton Telephone Company	$1.00	Hall County	$6.00	
Cairo	NT&T	$1.00	Hall County	$937.00	
Cairo	CenturyLink f/k/a Qwest	$1.00	Hall County	$2,572.62	
Doniphan	Hamilton Telephone Company	$1.00	Hall County	$7,505.00	
Grand Island	Allo Communications	$1.00	Hall County	$64.83	
Grand Island	AT&T Communications of the Midwest, Inc.	$1.00	Hall County	$509.00	
Grand Island	AT&T Corp	$1.00	Hall County	$308.00	
Grand Island	BullsEye	$1.00	Hall County	$359.00	
Grand Island	Charter Fiberlink-Nebraska, LLC	$1.00	Hall County	$53,976.51	
Grand Island	First Communications, LLC	$1.00	Hall County	$62.00	
Grand Island	McLeod USA Telecommunications Services/Paetec Business Services	$1.00	Hall County	$214.00	
Grand Island	Metropolitan Telecommunications of Nebraska, Inc., d/b/a MetTel	$1.00	City of Grand Island	$636.28	
Grand Island	NT&T	$1.00	Hall County	$10,036.00	
Grand Island	OrbitCom, Inc.	$1.00	Hall County	$5,465.00	
Grand Island	TCG Omaha	$1.00	Hall County	$72.00	$252,764.39
Grand Island	Windstream Midwest	$1.00	Hall County	$24,812.77	
Grand Island/ Alda	CenturyLink f/k/a Qwest	$1.00	Hall County	$108,135.38	
Hall	Trans National Communications International, Inc.	$1.00	Hall County	$299.00	
Hall County	Granite Telecommunications, LLC	$1.00	Hall County	$3,523.00	
Hall County	Ionex Communications North, Inc.	$1.00	Hall County	$27,040.00	
Hall County	Matrix Telecom, Inc. d/b/a Trinsic Communications d/b/a Vartec Telecom d/b/a Excel Telecommunications d/b/a Clear Choice Communications	$1.00	Hall County	$12.00	
Hall County	Level 3 Communications, LLC	$1.00	Hall County	$986.00	
Hansen	Windstream	$1.00	Hall County	$65.00	
Phillips	Hamilton Telephone Company	$1.00	Hall County	$72.00	
Wood River	Allo Communications	$1.00	Hall County	$12.00	
Wood River	NT&T	$1.00	Hall County	$1,156.00	
Wood River	CenturyLink f/k/a Qwest	$1.00	Hall County	$3,928.01	
Aurora	Hamilton Telephone Company	$1.00	Hamilton County	$34,187.00	
Doniphan	Hamilton Telephone Company	$1.00	Hamilton County	$38.00	
Giltner	Hamilton Telephone Company	$1.00	Hamilton County	$3,015.00	
Hamilton County	Level 3 Communications, LLC	$1.00	Hamilton County	$24.00	
Hampton	Hamilton Telephone Company	$1.00	Hamilton County	$4,040.00	
Hordville	Hamilton Telephone Company	$1.00	Hamilton County	$1,471.00	
Marquette	Hamilton Telephone Company	$1.00	Hamilton County	$3,096.00	
Phillips	Hamilton Telephone Company	$1.00	Hamilton County	$4,135.00	
Stockham	Hamilton Telephone Company	$1.00	Hamilton County	$1,188.00	
Trumbull	Hamilton Telephone Company	$1.00	Hamilton County	$1,521.00	$52,715.00

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Alma	Citizens Telecommunications Company of Nebraska	$1.00	Harlan County	$7,023.00	
Alma	NT&T	$1.00	Harlan County	$134.00	
Franklin	Citizens Telecommunications Company of Nebraska	$1.00	Harlan County	$10.00	
Harlan County	Granite Telecommunications, LLC	$1.00	Harlan County	$123.00	
Kearney	Citizens Telecommunications Company of Nebraska	$1.00	Harlan County	$16.00	
Orleans	Citizens Telecommunications Company of Nebraska	$1.00	Harlan County	$2,777.00	
Orleans	NT&T	$1.00	Harlan County	$31.00	
Oxford	NT&T	$1.00	Harlan County	$78.00	
Republican City	Citizens Telecommunications Company of Nebraska	$1.00	Harlan County	$2,235.00	
Stamford	Citizens Telecommunications Company of Nebraska	$1.00	Harlan County	$1,433.00	
Alma	Pinpoint Communications, Inc.	$1.00	Harlan-Phelps Counties	$256.00	$56,672.35
Atlanta	Pinpoint Communications, Inc.	$1.00	Harlan-Phelps Counties	$58.00	
Atlanta	CenturyLink f/k/a Qwest	$1.00	Harlan-Phelps Counties	$461.27	
Bertrand	Pinpoint Communications, Inc.	$1.00	Harlan-Phelps Counties	$11.00	
Holdrege	Allo Communications	$1.00	Harlan-Phelps Counties	$1,244.23	
Holdrege	BullsEye	$1.00	Harlan-Phelps Counties	$226.00	
Holdrege	Pinpoint Communications, Inc.	$1.00	Harlan-Phelps Counties	$129.00	
Holdrege	CenturyLink f/k/a Qwest	$1.00	Harlan-Phelps Counties	$19,087.73	
Huntley	Great Plains Communications	$1.00	Harlan-Phelps Counties	$609.16	
Loomis	Arapahoe Telephone Co.	$1.00	Harlan-Phelps Counties	$2,638.53	
Holdrege	First Communications, LLC	$1.00	Phelps County	$0.00	
Holdrege	OrbitCom, Inc.	$1.00	Phelps County	$108.00	
Phelps County	Granite Telecommunications, LLC	$1.00	Phelps County	$293.00	
Phelps County	Ionex Communications North, Inc.	$1.00	Phelps County	$164.00	
Atlanta	NT&T	$1.00	City of Holdrege	$110.00	
Bertrand	Citizens Telecommunications Company of Nebraska	$1.00	City of Holdrege	$4,601.00	
Bertrand	NT&T	$1.00	City of Holdrege	$47.00	
Funk	Glenwood Telephone Memb. Corp.	$1.00	City of Holdrege	$2,702.79	
Holdrege	Charter Fiberlink-Nebraska, LLC	$1.00	City of Holdrege	$6,886.69	
Holdrege	First Communications, LLC	$1.00	City of Holdrege	$0.00	
Holdrege	NT&T	$1.00	City of Holdrege	$3,081.95	
Kearney	Citizens Telecommunications Company of Nebraska	$1.00	City of Holdrege	$97.00	
Culbertson	Great Plains Communications	$1.00	Hitchcock County	$4,876.68	
Hayes Center	Great Plains Communications	$1.00	Hitchcock County	$2,668.69	
Palisade	Great Plains Communications	$1.00	Hitchcock County	$2,744.49	
Stratton	Great Plains Communications	$1.00	Hitchcock County	$2,972.96	
Trenton	Great Plains Communications	$1.00	Hitchcock County	$4,733.87	$17,996.69
Mullen	Consolidated Telephone Company, Inc.	$1.00	Hooker County	$5,745.65	$5,745.65
Boelus	Nebraska Central Telephone Co.	$1.00	Howard County	$1,789.43	
Cotesfield	Great Plains Communications	$1.00	Howard County	$730.00	
Dannebrog	Nebraska Central Telephone Co.	$1.00	Howard County	$3,524.41	
Elba	Nebraska Central Telephone Co.	$1.00	Howard County	$1,253.78	
Farwell	Allo Communications	$1.00	Howard County	$12.00	
Farwell	NT&T	$1.00	Howard County	$404.00	
Farwell	CenturyLink f/k/a Qwest	$1.00	Howard County	$641.40	
Howard County	Granite Telecommunications, LLC	$1.00	Howard County	$42.00	
Saint Libory	NT&T	$1.00	Howard County	$984.00	
Saint Paul	AT&T Communications of the Midwest, Inc.	$1.00	Howard County	$65.00	
Saint Paul	AT&T Corp	$1.00	Howard County	$27.00	
Saint Paul	BullsEye	$1.00	Howard County	$48.00	
Saint Paul	Charter Fiberlink-Nebraska, LLC	$1.00	Howard County	$3,440.39	$24,550.27
Saint Paul	First Communications, LLC	$1.00	Howard County	$0.00	
Saint Paul	NT&T	$1.00	Howard County	$1,544.00	

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Saint Libory	CenturyLink f/k/a Qwest	$1.00	Howard County	$1,731.00	
Saint Paul	CenturyLink f/k/a Qwest	$1.00	Howard County	$8,268.61	
Saint Paul	Allo Communications	$1.00	Howard County	$45.26	
Chester, Hubbell, Reynolds	Great Plains Communications	$1.00	Jefferson County	$732.36	
Daykin	Windstream	$1.00	Jefferson County	$1,737.23	
Diller	Diller Telephone Co	$1.00	Jefferson County	$2,421.00	
Fairbury	Time Warner Cable Information Services (Nebraska), LLC	$1.00	Jefferson County	$3,789.19	
Fairbury	Windstream	$1.00	Jefferson County	$21,846.59	
Harbine	Diller Telephone Co	$1.00	Jefferson County	$930.00	
Jansen	Windstream	$1.00	Jefferson County	$1,169.00	
Jefferson County	Granite Telecommunications, LLC	$1.00	Jefferson County	$58.00	
Odell	Diller Telephone Co	$1.00	Jefferson County	$0.00	
Plattsmouth	Windstream	$1.00	Jefferson County	$33,776.38	
Plymouth	Windstream	$1.00	Jefferson County	$3,641.61	
Steele City	Windstream	$1.00	Jefferson County	$738.00	$70,839.36
Burr	Windstream	$1.00	Johnson County	$860.68	
Cook	Windstream	$1.00	Johnson County	$2,353.10	
Crab Orchard	Windstream	$1.00	Johnson County	$696.83	
Elk Creek	Windstream	$1.00	Johnson County	$924.00	
Johnson County	Granite Telecommunications, LLC	$1.00	Johnson County	$72.00	
Johnson County	Level 3 Communications, LLC	$1.00	Johnson County	$39.00	
Sterling	Windstream	$1.00	Johnson County	$3,861.20	
Tecumseh	Time Warner Cable Information Services (Nebraska), LLC	$1.00	Johnson County	$1,787.00	
Tecumseh	Windstream	$1.00	Johnson County	$9,568.77	$20,162.58
Axtell	NT&T	$1.00	Kearney County	$566.00	
Axtell	CenturyLink f/k/a Qwest	$1.00	Kearney County	$2,398.55	
Heartwell	BullsEye	$1.00	Kearney County	$36.00	
Heartwell	Citizens Telecommunications Company of Nebraska	$1.00	Kearney County	$807.00	
Heartwell	Pinpoint Communications, Inc.	$1.00	Kearney County	$12.00	
Hildreth	Citizens Telecommunications Company of Nebraska	$1.00	Kearney County	$84.00	
Kearney	Citizens Telecommunications Company of Nebraska	$1.00	Kearney County	$1,722.00	
Kearney County	Granite Telecommunications, LLC	$1.00	Kearney County	$61.00	
Kearney County	Level 3 Communications, LLC	$1.00	Kearney County	$37.00	
Minden	Allo Communications	$1.00	Kearney County	$340.40	
Minden	First Communications, LLC	$1.00	Kearney County	$0.00	
Minden	NT&T	$1.00	Kearney County	$2,436.00	$25,832.52
Minden	OrbitCom, Inc.	$0.65	Kearney County	$23.40	
Minden	Pinpoint Communications, Inc.	$1.00	Kearney County	$129.00	
Minden	CenturyLink f/k/a Qwest	$1.00	Kearney County	$9,157.45	
Norman	Glenwood Telephone Memb. Corp.	$1.00	Kearney County	$987.47	
Ragan	Great Plains Communications	$1.00	Kearney County	$551.53	
Wilcox	Great Plains Communications	$1.00	Kearney County	$2,319.67	
Minden	Charter Fiberlink-Nebraska, LLC	$1.00	Kearney County	$4,164.05	
Big Springs	Allo Communications	$1.00	Keith County	$124.19	
Big Springs	NT&T	$1.00	Keith County	$558.00	
Big Springs/Ogallala	BullsEye	$1.00	Keith County	$199.00	
Brule	Applied Communications Technology, Inc.	$1.00	Keith County	$12.00	
Brule	Arapahoe Telephone Co.	$1.00	Keith County	$2,996.31	
Keith County	Granite Telecommunications, LLC	$1.00	Keith County	$373.00	
Keystone	Keystone Arthur Telephone CO	$1.00	Keith County	$2,225.00	
Lemoyne	Keystone Arthur Telephone CO	$1.00	Keith County	$2,586.00	
Ogallala	AT&T Communications of the Midwest, Inc.	$1.00	Keith County	$18.00	
Ogallala	AT&T Corp	$1.00	Keith County	$77.00	
Ogallala	Charter Fiberlink-Nebraska, LLC	$1.00	Keith County	$6,432.70	$54,338.72

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Ogallala	First Communications, LLC	$1.00	Keith County	$17.00	
Ogallala	NT&T	$1.00	Keith County	$2,187.00	
Ogallala	OrbitCom, Inc.	$1.00	Keith County	$457.00	
Ogallala	CenturyLink f/k/a Qwest	$1.00	Keith County	$17,388.00	
Tryon	Great Plains Communications	$1.00	Keith County	$2,424.97	
Chappell	CenturyLink	$1.00	Keith County	$5,201.00	
Lewellen	CenturyLink	$1.00	Keith County	$53.00	
Ogallala	Allo Communications	$1.00	Keith County	$7,329.79	
Stapleton	Great Plains Communications	$1.00	Keith County	$3,679.76	
Bassett	Rock County Telephone Co.	$1.00	Keya Paha County	$16.00	
Newport	Rock County Telephone Co.	$1.00	Keya Paha County	$24.00	
Springview	Three River Telco	$1.00	Keya Paha County	$5,033.00	$5,073.00
Bushnell	Dalton Telephone Co	$1.00	Kimball County	$1,599.00	
Dix	Dalton Telephone Co	$1.00	Kimball County	$1,324.00	
Kimball	BullsEye	$1.00	Kimball County	$12.00	
Kimball	CenturyLink	$1.00	Kimball County	$13,870.00	
Kimball County	Granite Telecommunications, LLC	$1.00	Kimball County	$46.00	
Kimball County	Level 3 Communications, LLC	$1.00	Kimball County	$139.02	$16,990.02
Bloomfield	Great Plains Communications	$1.00	Knox County	$11,189.85	
Center	Great Plains Communications	$1.00	Knox County	$1,598.23	
Creighton	Great Plains Communications	$1.00	Knox County	$10,195.73	
Crofton	Great Plains Communications	$1.00	Knox County	$7,761.76	$50,300.73
Niobrara	Great Plains Communications	$1.00	Knox County	$6,389.51	
Verdel	Three River Telco	$1.00	Knox County	$907.00	
Verdigre	Great Plains Communications	$1.00	Knox County	$4,923.17	
Walnut	Great Plains Communications	$1.00	Knox County	$717.95	
Wausa	Great Plains Communications	$1.00	Knox County	$5,404.84	
Winnetoon	Great Plains Communications	$1.00	Knox County	$1,212.69	
Bennet	Windstream	$1.00	Lancaster County	$7,655.34	
Cortland	Windstream	$1.00	Lancaster County	$296.00	
Davey	Windstream	$1.00	Lancaster County	$3,988.64	
Denton	Windstream	$1.00	Lancaster County	$4,506.60	
Denton, Lincoln	Time Warner Cable Information Services (Nebraska), LLC	$1.00	Lancaster County	$9,879.00	
Eagle	Windstream	$1.00	Lancaster County	$6,892.89	
Firth	Windstream	$1.00	Lancaster County	$6,045.97	
Greenwood	Windstream	$1.00	Lancaster County	$156.00	
Hallam	Windstream	$1.00	Lancaster County	$1,679.03	
Hickman	Windstream	$1.00	Lancaster County	$10,698.83	
Lancaster County	Granite Telecommunications, LLC	$1.00	Lancaster County	$5,255.00	
Lancaster County	Level 3 Communications, LLC	$1.00	Lancaster County	$163.00	
Lincoln	Charter Fiberlink-Nebraska, LLC	$1.00	Lancaster County	$1,661.35	
Lincoln	Windstream	$1.00	Lancaster County	$798,504.86	
Lincoln	XO Communications	$1.00	Lancaster County	$125.00	
Malcolm	Windstream	$1.00	Lancaster County	$5,717.63	
Martell	Windstream	$1.00	Lancaster County	$3,869.31	
Panama	Windstream	$1.00	Lancaster County	$2,573.00	
Pleasant Dale	Windstream	$1.00	Lancaster County	$2,710.97	
Raymond	Windstream	$1.00	Lancaster County	$5,413.40	
Valparaiso	Windstream	$1.00	Lancaster County	$5,650.00	
Waverly	Windstream	$1.00	Lancaster County	$14,516.02	
Lincoln	BullsEye	$1.00	City of Lincoln	$19.00	
Lincoln	AT&T Corp	$1.00	City of Lincoln	$136.00	
Lincoln	Matrix Telecom, Inc. d/b/a Trinsic Communications d/b/a Vartec Telecom d/b/a Excel Telecommunications d/b/a Clear Choice Communications	$1.00	City of Lincoln	$12.00	
Lincoln	NT&T	$1.00	City of Lincoln	$17,900.00	
Lincoln	Sprint Communications CO LP	$1.00	City of Lincoln	$178.00	
Lincoln	Time Warner Cable Information Services (Nebraska), LLC	$1.00	City of Lincoln	$238,258.45	
Waverly	NT&T	$1.00	City of Lincoln	$473.00	$1,161,612.79

Name of Exchange	Local Exchange Carrier	Monthly Surcharge to be Collected Approved by Jurisdiction	PSAP County/City Surcharge Remitted To	Total Annual Cost	Total Annual Amount Received by Jurisdiction
Lincoln	Level 3 Communications, LLC	$1.00	City of Lincoln	$6,678.50	
Lincoln County	Granite Telecommunications, LLC	$1.00	Lincoln County	$1,710.00	
North Platte	Charter Fiberlink-Nebraska, LLC	$1.00	North Platte PD	$4,084.42	$164,586.22
North Platte	First Communications, LLC	$1.00	Lincoln County	$67.00	
North Platte	OrbitCom, Inc.	$1.00	Lincoln County	$2,201.00	
Gothenburg	NT&T	$1.00	North Platte PD	$2,254.00	
Gothenburg	BullsEye	$1.00	North Platte PD	$98.00	
Gothenburg	CenturyLink f/k/a Qwest	$1.00	North Platte PD	$7,462.14	
Hershey	Hershey	$1.00	North Platte PD	$6,838.61	
North Platte	Allo Communications	$1.00	North Platte PD	$5,513.04	
North Platte	AT&T Communications of the Midwest, Inc.	$1.00	City of North Platte	$270.00	
North Platte	AT&T Corp	$1.00	City of North Platte	$44.00	
North Platte	BullsEye	$1.00	North Platte PD	$387.00	
North Platte	Charter Fiberlink-Nebraska, LLC	$1.00	North Platte PD	$24,965.10	
North Platte	Ionex Communications North, Inc.	$1.00	North Platte PD	$22,944.00	
North Platte	Metropolitan Telecommunications of Nebraska, Inc., d/b/a MetTel	$1.00	North Platte PD	$127.87	
North Platte	NT&T	$1.00	North Platte PD	$7,698.00	
North Platte	Pinpoint Communications, Inc.	$1.00	North Platte PD	$31.00	
North Platte	CenturyLink f/k/a Qwest	$1.00	North Platte PD	$56,316.86	
North Platte	Trans National Communications International, Inc.	$1.00	North Platte PD	$78.00	
North Platte	Windstream Midwest	$1.00	North Platte PD	$8,858.00	
North Platte	Level 3 Communications, LLC	$1.00	City of North Platte	$384.00	
Sutherland	Great Plains Communications	$1.00	North Platte PD	$6,336.98	
Brady	Consolidated Telecom, Inc.	$1.00	Village of Brady	$3,609.61	
Maxwell	Consolidated Telecom, Inc.	$1.00	Village of Maxwell	$2,307.59	
Battle Creek	Citizens Telecommunications Company of Nebraska	$1.00	Madison County	$7,336.00	
Battle Creek	NT&T	$1.00	Madison County	$98.00	
Columbus	Citizens Telecommunications Company of Nebraska	$1.00	Madison County	$6.00	
Madison	AT&T Communications of the Midwest, Inc.	$1.00	Madison County	$26.00	
Madison	AT&T Corp	$1.00	Madison County	$8.00	
Madison	Citizens Telecommunications Company of Nebraska	$1.00	Madison County	$9,663.00	
Madison	First Communications, LLC	$1.00	Madison County	$0.00	
Madison	NT&T	$1.00	Madison County	$130.00	
Madison County	Granite Telecommunications, LLC	$1.00	Madison County	$12.00	
Madison County	Level 3 Communications, LLC	$1.00	Madison County	$1,459.68	
Meadow Grove	Eastern Nebraska Telephone Co.	$1.00	Madison County	$2,371.00	
Neligh	Citizens Telecommunications Company of Nebraska	$1.00	Madison County	$6.00	
Newman Grove	Citizens Telecommunications Company of Nebraska	$1.00	Madison County	$3,315.00	$227,053.01
Norfolk	McLeod USA Telecommunications Services/Paetec Business Services	$1.00	Madison County	$128.00	
Norfolk	OrbitCom, Inc.	$1.00	Madison County	$12,054.00	
Tilden	Citizens Telecommunications Company of Nebraska	$1.00	Madison County	$4,999.00	
Tilden	NT&T	$1.00	Madison County	$36.00	
Madison	Trans National Communications International, Inc.	$1.00	Madison County	$0.00	
Wayne	BullsEye	$1.00	Madison County	$12.00	
Norfolk	Ionex Communications North, Inc.	$1.00	City of Norfolk	$46,782.00	
Norfolk	AT&T Communications of the Midwest, Inc.	$1.00	City of Norfolk	$319.00	
Norfolk	AT&T Corp	$1.00	City of Norfolk	$62.00	
Norfolk	First Communications, LLC	$1.00	City of Norfolk	$121.00	
Norfolk	Granite Telecommunications, LLC	$1.00	City of Norfolk	$1,725.00	

Name of Exchange	Local Exchange Carrier	Monthly Surcharge to be Collected Approved by Jurisdiction	PSAP County/City Surcharge Remitted To	Total Annual Cost	Total Annual Amount Received by Jurisdiction
Norfolk	NT&T	$1.00	City of Norfolk	$11,330.00	
Norfolk	TCG Omaha	$1.00	City of Norfolk	$24.00	
Pilger	NT&T	$1.00	City of Norfolk	$750.00	
Norfolk	Level 3 Communications, LLC	$1.00	City of Norfolk	$24,559.00	
Hoskins	Pierce Telephone Co Inc.	$1.00	Norfolk PD	$3,466.00	
Norfolk	BullsEye	$1.00	Norfolk PD	$192.00	
Norfolk	Metropolitan Telecommunications of Nebraska, Inc., d/b/a MetTel	$1.00	Norfolk PD	$498.83	
Norfolk	CenturyLink f/k/a Qwest	$1.00	Norfolk PD	$70,876.50	
Osmond	Eastern Nebraska Telephone Co.	$1.00	Norfolk PD	$5,862.00	
Pierce	Pierce Telephone Co Inc.	$1.00	Norfolk PD	$13,592.00	
Pilger	CenturyLink f/k/a Qwest	$1.00	Norfolk PD	$5,234.00	
Keystone	Keystone Arthur Telephone CO.	$1.00	McPherson County	$36.00	$36.00
Archer	Great Plains Communications	$1.00	Merrick County	$882.01	
Central City	Allo Communications	$1.00	Merrick County	$48.73	
Central City	AT&T Communications of the Midwest, Inc.	$1.00	Merrick County	$17.00	
Central City	BullsEye	$1.00	Merrick County	$48.00	
Central City	First Communications, LLC	$1.00	Merrick County	$0.00	
Central City	NT&T	$1.00	Merrick County	$3,163.00	
Central City	OrbitCom, Inc.	$1.00	Merrick County	$67.00	
Central City	CenturyLink f/k/a Qwest	$1.00	Merrick County	$12,175.30	
Chapman	Great Plains Communications	$1.00	Merrick County	$3,167.66	
Clarks	Clarks Telecommunications	$1.00	Merrick County	$4,001.00	
Genoa	Citizens Telecommunications Company of Nebraska	$1.00	Merrick County	$4.00	
Grand Island	Windstream Midwest	$1.00	Merrick County	$60.00	
Merrick County	Granite Telecommunications, LLC	$1.00	Merrick County	$216.00	
Merrick County	Ionex Communications North, Inc.	$1.00	Merrick County	$588.00	$31,873.40
Merrick County	Level 3 Communications, LLC	$1.00	Merrick County	$425.00	
Palmer	Citizens Telecommunications Company of Nebraska	$1.00	Merrick County	$3,900.00	
Palmer	NT&T	$1.00	Merrick County	$36.00	
Silver Creek	Allo Communications	$1.00	Merrick County	$36.00	
Silver Creek	NT&T	$1.00	Merrick County	$658.00	
Silver Creek	CenturyLink f/k/a Qwest	$1.00	Merrick County	$2,380.70	
Red Cloud	Great Plains Communications	$1.00	Mid Rivers 9-1-1	$9,873.53	
Roseland, Bladen, Lawrence, Blue Hill, Upland, and Campbell	Glenwood Telephone Membership Corporation	$1.00	Village of Campbell	$20,121.19	$29,994.72
Bayard/Bridgeport	BullsEye	$1.00	Morrill County	$24.00	
Bridgeport	Allo Communications	$1.00	Morrill County	$1,770.92	
Bridgeport	Charter Fiberlink-Nebraska, LLC	$1.00	Morrill County	$1,615.66	
Bridgeport	Mobius Communications Company	$1.00	Morrill County	$86.52	
Bridgeport	NT&T	$1.00	Morrill County	$1,514.00	
Bridgeport	OrbitCom, Inc.	$1.00	Morrill County	$361.00	
Morrill	CenturyLink	$1.00	Morrill County	$7,697.00	
Morrill County	Granite Telecommunications, LLC	$1.00	Morrill County	$237.00	
Morrill County (Rural)	CenturyLink f/k/a Qwest	$1.00	Morrill County	$7,325.00	$20,631.10
Belgrade	Great Plains Communications	$1.00	Nance County	$1,245.99	
Genoa	Citizens Telecommunications Company of Nebraska	$1.00	Nance County	$4,291.00	
Nance County	Granite Telecommunications, LLC	$1.00	Nance County	$23.00	
Nance County	Level 3 Communications, LLC	$1.00	Nance County	$354.00	
Nance County (Rural)	CenturyLink f/k/a Qwest	$1.00	Nance County	$5,189.00	
Palmer	Citizens Telecommunications Company of Nebraska	$1.00	Nance County	$24.00	
Albion	Citizens Telecommunications Company of Nebraska	$1.00	Nance County	$8.00	
Columbus	Citizens Telecommunications Company of Nebraska	$1.00	Nance County	$8.00	
Fullerton	Allo Communications	$1.00	Nance County	$3.83	$11,969.32

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Fullerton	NT&T	$0.50	Nance County	$822.50	
Nemaha	Windstream	$1.00	Nemaha County	$1,142.00	
Auburn	Time Warner Cable Information Services (Nebraska), LLC	$1.00	Nemaha County	$4,921.97	
Auburn	Windstream	$1.00	Nemaha County	$17,308.60	
Brock	Windstream	$1.00	Nemaha County	$1,095.30	
Brownville	Windstream	$1.00	Nemaha County	$2,030.83	
Dubois	Windstream	$1.00	Nemaha County	$110.00	$33,634.57
Johnson	Windstream	$1.00	Nemaha County	$3,256.84	
Julian	Windstream	$1.00	Nemaha County	$710.00	
Nemaha County	Granite Telecommunications, LLC	$1.00	Nemaha County	$228.00	
Nemaha County	Level 3 Communications, LLC	$1.00	Nemaha County	$70.50	
Peru	Windstream	$1.00	Nemaha County	$2,760.53	
Hardy	Windstream	$1.00	Nuckolls County	$1,457.82	
Nelson	Windstream	$1.00	Nuckolls County	$4,238.52	
Nuckolls County	Granite Telecommunications, LLC	$1.00	Nuckolls County	$90.00	
Ruskin	Windstream	$1.00	Nuckolls County	$1,071.56	
Superior	Windstream	$1.00	Nuckolls County	$13,020.39	$19,878.29
Cook	Windstream	$1.00	Otoe County	$25.00	
Douglas	Windstream	$1.00	Otoe County	$1,799.20	
Dunbar	Windstream	$1.00	Otoe County	$2,123.03	
Nebraska City	Time Warner Cable Information Services (Nebraska), LLC	$1.00	Otoe County	$8,400.00	
Nebraska City	Windstream	$1.00	Otoe County	$30,516.28	
Otoe	Windstream	$1.00	Otoe County	$1,207.34	
Otoe County	Granite Telecommunications, LLC	$1.00	Otoe County	$94.00	
Otoe County	Level 3 Communications, LLC	$1.00	Otoe County	$152.00	
Palmyra	Windstream	$1.00	Otoe County	$4,781.72	
Syracuse	Windstream	$1.00	Otoe County	$12,924.53	
Talmage	Windstream	$1.00	Otoe County	$1,774.18	
Unadilla	Windstream	$1.00	Otoe County	$2,398.80	$66,196.08
Burchard	Windstream	$1.00	Pawnee County	$1,656.20	
Dubois	Windstream	$1.00	Pawnee County	$1,438.23	
Pawnee City	Windstream	$1.00	Pawnee County	$5,319.72	
Pawnee City, Table Rock	Time Warner Cable Information Services (Nebraska), LLC	$1.00	Pawnee County	$1,509.99	
Pawnee County	Granite Telecommunications, LLC	$1.00	Pawnee County	$0.00	
Steinauer	Windstream	$1.00	Pawnee County	$973.27	
Table Rock	Windstream	$1.00	Pawnee County	$1,594.33	$12,491.74
Elsie	Elsie Communications, Inc.	$1.00	Perkins County	$1,955.00	
Grant	AT&T Communications of the Midwest, Inc.	$1.00	Perkins County	$18.00	
Grant	AT&T Corp	$1.00	Perkins County	$6.00	
Grant	Great Plains Communications	$1.00	Perkins County	$9,597.43	
Venango & West Venango, CO	Great Plains Communications	$1.00	Perkins County	$1,283.98	$12,860.41
Plainview	Plainview Telephone Company Inc.	$1.00	Pierce County	$11,017.86	$11,017.86
Albion	Citizens Telecommunications Company of Nebraska	$1.00	Platte County	$7.00	
Battle Creek	Citizens Telecommunications Company of Nebraska	$1.00	Platte County	$7.00	$164,067.06
Columbus	McLeod USA Telecommunications Services/Paetec Business Services	$1.00	Platte County	$10.00	
Columbus	Time Warner Cable Information Services (Nebraska), LLC	$1.00	Platte County	$457.00	
Columbus	BullsEye	$1.00	Platte County	$24.00	
Columbus	Citizens Telecommunications Company of Nebraska	$1.00	Platte County	$35,768.00	
Duncan	Citizens Telecommunications Company of Nebraska	$1.00	Platte County	$3,305.00	
Genoa	Citizens Telecommunications Company of Nebraska	$1.00	Platte County	$631.00	

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Kearney	Citizens Telecommunications Company of Nebraska	$1.00	Platte County	$6.00	
Leigh	Citizens Telecommunications Company of Nebraska	$1.00	Platte County	$735.00	
Lindsay	Citizens Telecommunications Company of Nebraska	$1.00	Platte County	$4,142.00	
Monroe	Citizens Telecommunications Company of Nebraska	$1.00	Platte County	$2,921.00	
Newman Grove	Citizens Telecommunications Company of Nebraska	$1.00	Platte County	$1,720.00	
Platte Center	Citizens Telecommunications Company of Nebraska	$1.00	Platte County	$5,195.00	
Platte County	Granite Telecommunications, LLC	$1.00	Platte County	$508.00	
Platte County	Level 3 Communications, LLC	$1.00	Platte County	$10.00	
Columbus	Citizens Telecommunications Company of Nebraska	$1.00	City of Columbus	$63,663.00	
Duncan	Citizens Telecommunications Company of Nebraska	$1.00	City of Columbus	$10.00	
Monroe	Citizens Telecommunications Company of Nebraska	$1.00	City of Columbus	$6.00	
Columbus	NT&T	$1.00	City of Columbus	$2,041.00	
Columbus	Time Warner Cable Information Services (Nebraska), LLC	$1.00	City of Columbus	$33,323.74	
Columbus	AT&T Communications of the Midwest, Inc.	$1.00	City of Columbus	$4.00	
Columbus	Level 3 Communications, LLC	$1.00	City of Columbus	$339.32	
Creston	NT&T	$1.00	City of Columbus	$646.00	
Genoa	NT&T	$1.00	City of Columbus	$24.00	
Humphrey	NT&T	$1.00	City of Columbus	$2,121.00	
Leigh	NT&T	$1.00	City of Columbus	$12.00	
Lindsay	NT&T	$1.00	City of Columbus	$88.00	
Madison	Citizens Telecommunications Company of Nebraska	$1.00	City of Columbus	$8.00	
Newman Grove	NT&T	$1.00	City of Columbus	$16.00	
Platte Center	Citizens Telecommunications Company of Nebraska	$1.00	City of Columbus	$6.00	
Platte Center	NT&T	$1.00	City of Columbus	$20.00	
Creston/Humphrey	CenturyLink f/k/a Qwest	$1.00	Columbus PD	$6,293.00	
Osceola	Windstream	$1.00	Polk County	$6,715.61	
Polk	Windstream	$1.00	Polk County	$3,044.93	
Polk County	Granite Telecommunications, LLC	$1.00	Polk County	$21.00	
Polk County	Level 3 Communications, LLC	$1.00	Polk County	$191.11	
Polk County (Rural)	CenturyLink f/k/a Qwest	$1.00	Polk County	$24.00	
Shelby	Windstream	$1.00	Polk County	$4,326.71	
Stromsburg	Windstream	$1.00	Polk County	$7,932.16	$22,255.52
McCook	First Communications, LLC	$1.00	Red Willow County	$0.00	
McCook	OrbitCom, Inc.	$1.00	Red Willow County	$1,424.00	
Red Willow County	Granite Telecommunications, LLC	$1.00	Red Willow County	$662.00	
Bartley	Cambridge Telephone Co.	$1.00	McCook PD	$2,144.00	
Danbury	Hartman Telephone Exchanges, Inc.	$1.00	McCook PD	$1,346.00	
Indianola	Great Plains Communications	$1.00	McCook PD	$3,873.65	
Lebanon	Hartman Telephone Exchanges, Inc.	$1.00	McCook PD	$752.00	
McCook	Allo Communications	$1.00	McCook PD	$3,066.61	
McCook	BullsEye	$1.00	McCook PD	$36.00	
McCook	Pinpoint Communications, Inc.	$1.00	McCook PD	$7,503.00	
McCook	CenturyLink f/k/a Qwest	$1.00	McCook PD	$28,560.00	
McCook	Ionex Communications North, Inc.	$1.00	City of McCook	$164.00	
McCook	NT&T	$1.00	City of McCook	$3,946.00	
McCook	AT&T Corp	$1.00	City of McCook	$6.00	
McCook	First Communications, LLC	$1.00	City of McCook	$0.00	$53,483.26
Arcadia	Nebraska Central Telephone Co.	$1.00	Region 26	$2,632.37	
Ashton	Nebraska Central Telephone Co.	$1.00	Region 26	$1,574.87	$41,374.07

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Burwell	Nebraska Central Telephone Co.	$1.00	Region 26	$11,366.82	
Ericson	Nebraska Central Telephone Co.	$1.00	Region 26	$1,501.84	
Greeley	NT&T	$1.00	Region 26	$135.00	
Litchfield	Nebraska Central Telephone Co.	$1.00	Region 26	$1,857.38	
Loup City	Allo Communications	$1.00	Region 26	$4.83	
Loup City	NT&T	$1.00	Region 26	$1,397.00	
Loup City	CenturyLink f/k/a Qwest	$1.00	Region 26	$4,050.00	
North Burwell	Nebraska Central Telephone Co.	$1.00	Region 26	$1,086.81	
North Loup	Nebraska Central Telephone Co.	$1.00	Region 26	$2,700.74	
Ord	NT&T	$1.00	Region 26	$159.00	
Rockville	Nebraska Central Telephone Co.	$1.00	Region 26	$610.29	
Scotia	Nebraska Central Telephone Co.	$1.00	Region 26	$2,687.84	
Spalding	Great Plains Communications	$1.00	Region 26	$4,860.79	
Taylor	Nebraska Central Telephone Co.	$1.00	Region 26	$2,339.81	
Thedford	OrbitCom, Inc.	$1.00	Region 26	$24.00	
Wolbach	Great Plains Communications	$1.00	Region 26	$2,384.68	
Dawson	Windstream	$0.50	City of Dawson (Richardson)	$869.27	
Falls City	Time Warner Cable Information Services (Nebraska), LLC	$1.00	City of Falls City (Richardson)	$3,365.00	
Falls City	Southeast Nebraska Communications	$1.00	Falls City PD	$28,586.00	
Humboldt	Time Warner Cable Information Services (Nebraska), LLC	$0.50	City of Humboldt (Richardson)	$533.33	
Humboldt	Windstream	$0.50	City of Humboldt (Richardson)	$2,886.14	
Tri City	Southeast Nebraska Communications	$1.00	Falls City PD	$5,760.49	$42,000.23
Bassett	Rock County Telephone Co.	$1.00	Rock County	$6,982.00	
Newport	Rock County Telephone Co.	$1.00	Rock County	$1,806.00	$8,788.00
Dewitt	Windstream	$1.00	Saline County	$3,774.53	
Dorchester	Windstream	$1.00	Saline County	$3,293.83	
Friend	Windstream	$1.00	Saline County	$6,575.93	
Saline County	Granite Telecommunications, LLC	$1.00	Saline County	$0.00	
Saline County	Level 3 Communications, LLC	$1.00	Saline County	$98.00	
Swanton	Windstream	$1.00	Saline County	$894.00	
Tobias	Windstream	$1.00	Saline County	$1,333.59	
Western	Windstream	$1.00	Saline County	$10,460.48	
Wilber	Windstream	$1.00	Saline County	$1,766.00	
Crete	Time Warner Cable Information Services (Nebraska), LLC	$1.00	City of Crete	$3,627.00	
Crete	Windstream	$1.00	City of Crete	$22,936.50	
Crete	Granite Telecommunications, LLC	$1.00	City of Crete	$249.00	
Crete	Level 3 Communications, LLC	$1.00	City of Crete	$12.00	$55,020.86
Bellevue	CenturyLink f/k/a Qwest	$1.00	Sarpy County	$30,552.92	
Bellevue	McLeod USA Telecommunications Services/Paetec Business Services	$1.00	Sarpy County	$729.00	
Gretna	CenturyLink f/k/a Qwest	$1.00	Sarpy County	$8,416.21	
LaVista/ Papillion/ Millard	CenturyLink f/k/a Qwest	$1.00	Sarpy County	$96,951.80	
Omaha	BullsEye	$1.00	Sarpy County	$833.00	
Omaha	McLeod USA Telecommunications Services/Paetec Business Services	$1.00	Sarpy County	$1,641.00	
Omaha	NT&T	$1.00	Sarpy County	$4,361.50	
Omaha	Windstream Midwest	$1.00	Sarpy County	$9,726.27	
Papillion	Cox	$1.00	Sarpy County	$362,503.00	$553,735.77
Papillion	Entelegent Solutions, Inc.	$0.50	Sarpy County	$36.00	
Papillion	First Communications, LLC	$1.00	Sarpy County	$0.00	
Papillion	MCImetro Access Transmission Services LLC d/b/a Verizon Access Transmission Services	$1.00	Sarpy County	$675.00	
Papillion	OrbitCom, Inc.	$1.00	Sarpy County	$245.00	
Papillion	TCG Omaha	$1.00	Sarpy County	$2,732.00	

Name of Exchange	Local Exchange Carrier	Monthly Surcharge to be Collected Approved by Jurisdiction	PSAP County/City Surcharge Remitted To	Total Annual Cost	Total Annual Amount Received by Jurisdiction
Plattsmouth	AT&T Communications of the Midwest, Inc.	$1.00	Sarpy County	$2,072.00	
Plattsmouth	AT&T Corp	$1.00	Sarpy County	$549.00	
Sarpy County	Ionex Communications North, Inc.	$1.00	Sarpy County	$0.00	
Sarpy County	Level 3 Communications, LLC	$1.00	Sarpy County	$1,888.00	
Springfield	CenturyLink f/k/a Qwest	$1.00	Sarpy County	$4,684.96	
Unincorporated	CenturyLink f/k/a Qwest	$1.00	Sarpy County	$24,952.11	
Papillion	Trans National Communications International, Inc.	$1.00	Sarpy County	$187.00	
Cedar Bluff	Time Warner Cable Information Services (Nebraska), LLC	$1.00	Saunders County	$2,458.45	
Cedar Bluffs	Windstream	$1.00	Saunders County	$3,889.87	
Ceresco	Windstream	$1.00	Saunders County	$1,207.00	
Colon	Windstream	$1.00	Saunders County	$5,130.47	
Ithaca	Windstream	$1.00	Saunders County	$1,540.00	
Mead	Windstream	$1.00	Saunders County	$4,100.44	
Morse Bluff	Northeast Nebraska Telephone Company	$1.00	Saunders County	$2,626.00	
Prague	Northeast Nebraska Telephone Company	$1.00	Saunders County	$4,050.00	
Saunders County	Granite Telecommunications, LLC	$1.00	Saunders County	$300.00	
Saunders County (Rural)	CenturyLink f/k/a Qwest	$1.00	Saunders County	$2,371.50	
Wahoo	AT&T Communications of the Midwest, Inc.	$1.00	Saunders County	$9.00	
Wahoo	AT&T Corp	$1.00	Saunders County	$3.00	
Wahoo	Charter Fiberlink-Nebraska, LLC	$1.00	Saunders County	$4,534.25	
Wahoo	Level 3 Communications, LLC	$1.00	Saunders County	$201.05	
Wahoo	Windstream	$1.00	Saunders County	$21,733.79	
Weston/Malmo	Northeast Nebraska Telephone Company	$1.00	Saunders County	$4,609.00	
Yutan	Windstream	$1.00	Saunders County	$7,636.46	$66,400.28
Gering	Allo Communications	$1.00	Scotts Bluff County	$9,073.84	
Gering	Charter Fiberlink-Nebraska, LLC	$1.00	Scotts Bluff County	$27,756.05	
Gering	Level 3 Communications, LLC	$1.00	Scotts Bluff County	$250.00	
Scotts Bluff County	Granite Telecommunications, LLC	$1.00	Scotts Bluff County	$958.00	
Scotts Bluff County	Ionex Communications North, Inc.	$1.00	Scotts Bluff County	$108.00	$169,895.93
Scottsbluff	BullsEye	$1.00	Scotts Bluff County	$264.00	
Scottsbluff	CenturyLink	$1.00	Scotts Bluff County	$95,838.00	
Scottsbluff	Allo Communications	$1.00	Scotts Bluff County	$35,648.04	
Beaver Crossing	Windstream	$1.00	Seward County	$3,109.32	
Cordova	Windstream	$1.00	Seward County	$1,041.00	
Garland	Windstream	$1.00	Seward County	$2,328.90	
Milford	Windstream	$1.00	Seward County	$11,668.84	
Seward	Time Warner Cable Information Services (Nebraska), LLC	$1.00	Seward County	$6,074.23	
Seward	Windstream	$1.00	Seward County	$28,775.42	
Seward	Level 3 Communications, LLC	$1.00	Seward County	$23.96	
Seward County	Granite Telecommunications, LLC	$1.00	Seward County	$471.00	
Seward County	McLeod USA Telecommunications Services/Paetec Business Services	$1.00	Seward County	$20.00	
Staplehurst	Clarks Telecommunications	$1.00	Seward County	$1,933.00	
Tamora	Windstream	$1.00	Seward County	$1,430.00	
Ulysses	Clarks Telecommunications	$1.00	Seward County	$116.00	
Utica	Windstream	$1.00	Seward County	$4,871.15	$61,862.82
Gordon	Great Plains Communications	$1.00	Sheridan County	$16,275.74	
Hay Springs	Great Plains Communications	$1.00	Sheridan County	$5,020.62	
Mirage Flats	Great Plains Communications	$1.00	Sheridan County	$1,305.31	
Rushville	Great Plains Communications	$1.00	Sheridan County	$8,172.69	
Sheridan County (Rural)	CenturyLink f/k/a Qwest	$1.00	Sheridan County	$393.00	$31,876.60

Name of Exchange	Local Exchange Carrier	Monthly Surcharge to be Collected Approved by Jurisdiction	PSAP County/City Surcharge Remitted To	Total Annual Cost	Total Annual Amount Received by Jurisdiction
White Clay	Golden West Telecommunications Coop, Inc.	$1.00	Sheridan County	$709.24	
Sherman County	Granite Telecommunications, LLC	$1.00	Sherman County	$11.00	
Loup City	Charter Fiberlink-Nebraska, LLC	$1.00	Sherman County	$1,218.55	$1,229.55
Sioux County	Granite Telecommunications, LLC	$1.00	Sioux County	$3.00	$3.00
Leigh	Citizens Telecommunications Company of Nebraska	$1.00	Stanton County	$60.00	
Stanton	AT&T Corp	$1.00	Stanton County	$3.00	
Stanton	Stanton Telecom, Inc.	$1.00	Stanton County	$12,013.02	
Pilger/Stanton County	Level 3 Communications, LLC	$1.00	Stanton County	$170.00	
Stanton	AT&T Communications of the Midwest, Inc.	$1.00	Stanton County	$18.00	$12,264.02
Byron & South Byron, KS	Great Plains Communications	$1.00	Thayer County	$2,033.31	
Chester, Hubbell, South Chester	Great Plains Communications	$1.00	Thayer County	$3,222.18	
Deshler	Great Plains Communications	$1.00	Thayer County	$6,203.24	
Thayer County	Granite Telecommunications, LLC	$1.00	Thayer County	$8.00	
Alexandria	Windstream	$1.00	Thayer County	$1,235.88	$30,331.89
Bruning	Windstream	$1.00	Thayer County	$2,702.40	
Carleton	Windstream	$1.00	Thayer County	$997.00	
Davenport	Windstream	$1.00	Thayer County	$2,762.77	
Hebron	Windstream	$1.00	Thayer County	$11,167.11	
Brownlee	Consolidated Telephone Company, Inc.	$1.00	Thomas County	$939.36	
Halsey	Consolidated Telephone Company, Inc.	$1.00	Thomas County	$958.10	
Seneca	Consolidated Telephone Company, Inc.	$1.00	Thomas County	$581.88	
Thedford	Consolidated Telephone Company, Inc.	$1.00	Thomas County	$3,072.93	$5,552.27
Macy	Eastern Nebraska Telephone Co.	$1.00	Thurston County	$4,325.00	
Pender	HunTel CableVision dba HunTel Communications	$1.00	Thurston County	$3,982.00	
Pender	OrbitCom, Inc.	$1.00	Thurston County	$0.00	
Pender	CenturyLink f/k/a Qwest	$1.00	Thurston County	$5,060.00	
Rosalie	Eastern Nebraska Telephone Co.	$1.00	Thurston County	$1,228.00	
Thurston County	Granite Telecommunications, LLC	$1.00	Thurston County	$84.00	
Walthill	Eastern Nebraska Telephone Co.	$1.00	Thurston County	$4,491.00	
Winnebago	Eastern Nebraska Telephone Co.	$1.00	Thurston County	$7,827.00	
Pender	NT&T	$1.00	Thurston County	$1,582.00	$28,579.00
Ord	Citizens Telecommunications Company of Nebraska	$1.00	Valley County	$15,281.00	
Order	Charter Fiberlink-Nebraska, LLC	$1.00	Valley County	$2,789.11	
Valley County	Granite Telecommunications, LLC	$1.00	Valley County	$57.00	$18,127.11
Arlington city	Arlington Telephone Co.	$0.75	Washington County	$3,793.50	
Arlington rural	Arlington Telephone Co.	$1.00	Washington County	$4,542.00	
Bennington	CenturyLink f/k/a Qwest	$1.00	Washington County	$2,157.54	
Blair	AT&T Communications of the Midwest, Inc.	$1.00	Washington County	$9.00	
Blair	AT&T Corp	$1.00	Washington County	$3.00	
Blair	Level 3 Communications, LLC	$1.00	Washington County	$143.00	
Blair city	Blair Telephone Co.	$0.75	Washington County	$31,637.25	
Blair rural	Blair Telephone Co.	$1.00	Washington County	$19,062.00	
Fort Calhoun city	Blair Telephone Co.	$0.75	Washington County	$3,920.25	
Fort Calhoun rural	Blair Telephone Co.	$1.00	Washington County	$4,703.00	
Herman	Great Plains Communications	$.75 & $1.00	Washington County	$3,710.15	
Kennard city	Blair Telephone Co.	$0.75	Washington County	$1,047.75	
Kennard rural	Blair Telephone Co.	$1.00	Washington County	$2,121.00	
Omaha	CenturyLink f/k/a Qwest	$1.00	Washington County	$4,380.46	
Omaha	Windstream Midwest	$1.00	Washington County	$132.00	$81,361.90
Dixon-Concord	Northeast Nebraska Telephone Company	$1.00	Wayne County	$72.00	$33,609.00
Wayne	OrbitCom, Inc.	$1.00	Wayne County	$1,568.00	
Wayne	Trans National Communications International, Inc.	$1.00	Wayne County	$0.00	

Name of Exchange	Local Exchange Carrier	Monthly Surcharge to be Collected Approved by Jurisdiction	PSAP County/City Surcharge Remitted To	Total Annual Cost	Total Annual Amount Received by Jurisdiction
Wayne County	Ionex Communications North, Inc.	$1.00	Wayne County	$300.00	
Winside	Northeast Nebraska Telephone Company	$1.00	Wayne County	$3,525.00	
Carroll	Eastern Nebraska Telephone Co.	$1.00	Village of Carroll	$2,337.00	
Wayne	Granite Telecommunications, LLC	$1.00	City of Wayne	$68.00	
Wakefield	NT&T	$1.00	City of Wayne	$981.00	
Wayne	AT&T Communications of the Midwest, Inc.	$1.00	City of Wayne	$62.00	
Wayne	AT&T Corp	$1.00	City of Wayne	$18.00	
Wayne	First Communications, LLC	$1.00	City of Wayne	$24.00	
Wayne	NT&T	$1.00	City of Wayne	$1,945.00	
Wayne	BullsEye	$1.00	Wayne PD	$180.00	
Wayne	HunTel CableVision dba HunTel Communications	$1.00	Wayne PD	$7,133.00	
Wayne	CenturyLink f/k/a Qwest	$1.00	Wayne PD	$15,396.00	
Guide Rock	Windstream	$1.00	City of Guide Rock (Webster)	$2,092.02	$2,092.02
Bartlett	Northeast Nebraska Telephone Company	$1.00	Wheeler County	$2,111.00	
Clearwater	Northeast Nebraska Telephone Company	$1.00	Wheeler County	$428.00	$2,539.00
Benedict	Windstream	$1.00	York County	$1,977.00	
Bradshaw	Windstream	$1.00	York County	$2,131.60	
Gresham	Windstream	$1.00	York County	$2,304.33	
Henderson	Henderson Coop Telephone d/b/a Mainstay Communications	$1.00	York County	$10,054.40	
McCool Junction	Windstream	$1.00	York County	$3,504.00	
Waco	Windstream	$1.00	York County	$3,684.50	
York	Level 3 Communications, LLC	$1.00	York County	$28.00	
York	Time Warner Cable Information Services (Nebraska), LLC	$1.00	York County	$9,600.00	
York County	Granite Telecommunications, LLC	$1.00	York County	$30.00	
York	Granite Telecommunications, LLC	$0.50	City of York	$324.00	
York	Windstream	$1.00	City of York	$18,014.21	$51,652.04
				$7,417,739.86	$7,417,739.86

PART V

Telecommunications

New This Year

Electronic Boundary Maps – Last November, the FCC issued an Order mandating local carriers submit their boundary data in electronic format to the FCC. The Commission opened a docket, conducted a workshop, and ultimately agreed to be the entity that submitted the electronic boundary data on behalf of the carriers to the FCC. The Commission began a collaborative effort with Nebraska carriers to translate its official paper boundary maps to electronic format for submission to the FCC. More information on the electronic boundary map transition is below on page 53.

Competitive Local Exchange Carriers

Pursuant to provisions of the 1996 Telecommunications Act, the Commission designates companies as competitive local exchange carriers (CLECs) allowing companies to provide service to customers using the facilities of the local telephone company or their own facilities. The creation of CLECs introduced competition into monopoly markets giving customers more than one choice of telephone company in the local market. For more information on the 1996 Act refer to Part I of this report.

There are currently 96 carriers that have received Certificates of Public Convenience and Necessity to operate as CLECs in the State of Nebraska. Not all companies with CLEC authority currently conduct business in Nebraska. For a list of all local telephone companies with authority in Nebraska, please see Part VI of this report.

The following companies received new authority during the 2012-2013 fiscal years to provide local service in the corresponding territories in Nebraska:

Carrier	Territory to be Served	Authority Granted
Zone Telecom, LLC	Statewide	11-7-12
Horizon Communications Corp.	Statewide	11-19-12
PBN, LLC	Statewide	11-19-12
Teleport Communications of America, LLC	Statewide	12-21-12

Interconnection Agreements

CLECs competing with a local telephone company to serve customers in the same area must enter into an agreement allowing the CLEC to utilize the facilities of the local company for a fee to route telephone traffic. These agreements are called Interconnection Agreements under the Telecommunications Act of 1996. Local telephone companies and CLECs enter into an interconnection agreement by either negotiating the terms of the agreement, adopting an

approved interconnection agreement of two other carriers pursuant to Section 252(i) of the 1996 Act, or through mediation or arbitration if negotiations fail to result in a mutually acceptable agreement. A copy of all current Commission approved interconnection agreements are available for review on the Commission's website at www.psc.nebraska.gov.

Exchange Boundaries

The Geographical area in which a telephone company serves, offering the same services and prices is called an exchange. The Commission keeps official maps of the exchange boundaries of all local telephone companies operating in Nebraska. Nebraska law does include a process whereby a customer can seek a change in the boundary of telephone exchanges to allow the customer to receive service from an adjacent exchange. The Nebraska Legislature broadened the process to include not only traditional telephone service but also broadband service offerings as well. For more on LB 715, see Part II of this Report. In the event the Commission grants a petition from a customer to change an exchange boundary, the two telephone companies involved are required to file updated exchange maps with the Commission. The following is a list of boundary change applications received by the Commission in the past year:

C-4442 *In the Matter of the Application of Jeanne McGinnis, Dawson, seeking authority to receive telephone service from the Falls City exchange of the Southeast Nebraska Telephone Company.*

On November 16, 2012, an application was filed by Jeanne McGinnis of Dawson, Nebraska, seeking a boundary change to receive telephone service from the adjacent Dawson exchange of Southeast Nebraska Telephone Company in lieu of her current telephone service from Windstream Communications, Inc. On February 25, 2013, the Commission received a request from the Applicant asking to withdraw the application. The Commission granted the request to withdraw the application March 5, 2013.

C-4499 *In the Matter of the Application of Walter Fleer, Jr., Hoskins, seeking authority to receive telephone service from the Hoskins exchange of the Pierce Telephone Company.*

On July 18, 2012, an application was filed by Walter Fleer, Jr., of Hoskins, Nebraska, seeking authority for a boundary change to receive telephone service from the Hoskins Exchange of the Pierce Telephone Company (PTC) in lieu of his current telephone service from CenturyLink. Both Pierce Telephone Company and CenturyLink consented to the change. Accordingly, on August 28, 2012, the Commission approved the boundary change.

C-4552 *In the Matter of the Application of Francis and Julie Fiegener, Dawson, seeking authority to receive telephone service from the Falls City exchange of the Southeast Nebraska Communications Telephone Company.*

On December 31, 2012, the Commission received an application from Francis and Julie Fiegener of Dawson, Nebraska, seeking authority to receive telephone service from the Falls City exchange of Southeast Nebraska Communications Telephone Company. On February 25, 2013, the Commission received a request from applicants to withdraw the application. On March 5, 2013, that request was granted. Based on the information received, the Commission believes the Applicants were able to receive the desired service without a change in the local exchange boundary.

C-4576 *In the Matter of the Request of Nebraska Central Telephone Company, Gibbon, seeking approval to update the boundaries of the Burwell Exchange.*

On January 17, 2013, a request was filed with the Commission by Nebraska Central Telephone Company (NCTC), out of Gibbon, Nebraska, seeking approval to update the boundaries of the Burwell Exchange of NCTC. NCTC is a local exchange carrier holding a certificate of public convenience and necessity to provide local exchange service in its respective territory. NCTC began providing service at the request of customers in an area that had previously been unserved near the Burwell Exchange. NCTC filed the request with the Commission to update the boundaries of the Burwell Exchange to reflect the service provided by NCTC in the previously unserved area. No other exchange carrier was offering service in that area of the Burwell Exchange. No other exchange carriers protested the application. The Commission found the application to be in the public interest and entered an order granting the requested boundary update on March 5, 2013.

C-4590 *In the Matter of the Application of David Novak, Aurora, seeking authority to receive telephone service from the Stockham Exchange of the Hamilton Telecommunications.*

On March 4, 2013, an application was filed by David Novak of Aurora, Nebraska, seeking a boundary change to receive telephone service from the Stockham Exchange of the Hamilton Telecommunications Company in lieu of his current telephone service from Windstream Communications, Inc. Due to unresolved questions regarding changes to federal boundary maps the application is pending resolution of those issues.

C-4600 *In the Matter of the Application of Consolidated Telephone Company, Lincoln, seeking authority to re-establish the Arthur, Dunning and Brewster Exchanges.*

On April 3, 2013, Consolidated Telephone Company sought authority to re-establish Arthur, Dunning and Brewster as stand-alone exchanges. In 2010, the Commission approved the consolidation of Consolidated's 15 stand-alone exchanges into four exchanges of Hyannis, Merna, Mullen and Thedford. According to Consolidated Telephone Company, the re-establishment of Arthur, Dunning and Brewster as stand-alone exchanges was attributable to changes made by the Federal Communications Commission to reform the federal universal service program. The Applicant stated that without approval of the request it would have fewer resources available for future upgrades. Further, the Applicant stated, the re-establishment of the three stand-alone exchanges would improve service by providing intra-switch calling in more

locations. The calling scope that was previously increased through the consolidation would remain the same. The Commission approved the application on May 14, 2013.

Pay Phone Waiver

C-4520 *In the Matter of Hartington Telecommunications Co., Inc. d/b/a Hartelco, Hartington, seeking a waiver of the requirement of Title 291 NAC Ch.5, Rule 002.06 regarding public pay stations.*

On September 18, 2012, the Commission received a request from Hartington Telecommunications Co., Inc. d/b/a Hartelco, from Hartington, Nebraska, for a waiver of the requirement contained in Title 291 NAC Ch.5, Rule 002.06 of the Commission's Telecommunications Rules and Regulations regarding public pay stations. Commission rules require each local exchange carrier to provide at least one public pay station in each town served by the carrier. The rule may be waived by the Commission upon a showing by the company of abusive vandalism or damage, excessive cost of maintaining the pay station, or lack of use. In its application Hartelco cited two reasons for the Commission to grant a waiver of the pay station rule, lack of use and excessive cost to maintain the station. The Commission granted the requested waiver of the rule on October 30, 2012.

Long Distance/Interexchange Carriers

There are over 228 long distance telephone companies, called interexchange carriers or IXCs, certificated by the Commission to provide service in Nebraska. The long distance market in Nebraska is quite competitive, evidenced by the marketing of optional long distance packages, bundled service packages and unlimited local and long distance services for one combined price. Some of the bundled packages include wireless, Internet, and video options. For a complete list of authorized IXCs in Nebraska, see Part VI of this report.

Call Termination Issue

C-4328/ PI-176 *In the Matter of the Nebraska Public Service Commission, on its own motion, to investigate issues related to the service quality associated with intrastate interexchange service including the origination, termination, and routing of interexchange calls.*

On February 1, 2011, the Commission opened a docket to investigate long distance service quality issues associated with the origination, termination, and routing of long distance calls. The Commission has received complaints from customers reporting problems placing and receiving long distance calls. Further, staff has received reports from some local exchange carriers of customer complaints they received reporting similar problems. Customers have stated to the Commission that long distance calls are either failing to connect to the called party or taking as long as 20 to 30 seconds to finally establish connection, at which point some called parties have already disconnected thinking the call had failed. Commission staff issued two sets

of Data Requests seeking information on the long distance service quality issues experienced by customers and the Commission held a workshop to discuss the findings of the first data request and seek more information regarding the issues.

Based on the information received it was readily apparent that the issues experienced by Nebraska carriers and customers were not unique to Nebraska. Many concerned parties, including the Commission and Nebraska carriers, brought the problems to the attention of the FCC. In response the FCC held a workshop addressing the rural call completion problem on October 18, 2011.

The Nebraska Commission, joined by eleven other state Commissions, sent a letter to the FCC urging the FCC to issue a declaratory ruling reaffirming foundational Telecommunications Act tenets. The Commission also compiled contact information for individuals with call routing and network engineering responsibilities for companies operating in Nebraska.

In February 2012, the FCC entered a ruling reaffirming a carrier's obligation to originate, route and terminate traffic in an unrestricted manner. Further, the FCC reaffirmed that carriers are responsible for the acts, omissions, or failures of their employees and agents.

In December 2012, the Commission staff and some Nebraska carriers collaborated to conduct intrastate long distance testing of call completion. Some national interexchange carriers also participated in the testing. The testing effort is ongoing.

On February 7, 2013, the FCC issued a notice of proposed rulemaking (NPRM) regarding call termination and sought comment on proposed rules. As part of that NPRM, the FCC said it would consider measures to improve its ability to monitor the delivery of long-distance calls to rural areas and aid enforcement action in connection with providers' call-completion practices as necessary. The FCC asked for input on reporting and data retention requirements that would allow the FCC to review a long distance provider's call performance to specific areas. The Commission filed joint comments with 13 other states supporting the FCC efforts but urging them to go further and require the industry to track, record, and report the reason for call failure, provide a timed message alerting callers their call is being routed, require call routers to register with the FCC, create a database of contact information for all call routers, eliminate safe harbors regarding collection and retention of call failure data, and require industry standard metrics for reporting.

In March 2013, the FCC's Enforcement Bureau announced that the FCC and Level 3 Communications, Inc. had entered into a consent decree whereby Level 3 agreed to pay the federal government $975,000 and to abide by call completion standards in the future. In addition, Level 3 agreed to complete long-distance calls to incumbent local exchange carriers in rural areas within 5% rate of the rate of completion in non-rural areas over a two-year period, report to the FCC beginning in January 2014 its compliance with the 5% benchmark every quarter, and pay an additional $1 million to the government if the company misses the 5% benchmark in any quarter.

Rule & Reg. No. 187 — *In the Matter of the Commission, on its own motion, seeking to amend Title 291 Chapter 5, Telecommunications Rules and Regulations, to add rules regarding adequacy of service and prohibiting call blocking and choking.*

In response to the information received regarding service quality issues surrounding long distance service, the Commission opened a rulemaking proceeding on July 17, 2012, to codify in the Commission's Telecommunications rules prohibitions against blocking and choking calls and clarifying that all carriers are responsible for the acts or omissions of their agents and employees. On April 16, 2013, the Commission issued an order adopting a final set of rules and sent them for required review. On August 28, 2013, the Governor approved the rules and filed them with the Secretary of State's office. The rules became effective September 2, 2013.

Electronic Boundary Maps

C-4543/ PI-186 — *In the Matter of the Nebraska Public Service Commission, on its own motion, to investigate and explore federally mandated filing of electronic maps certifying the study area of Incumbent Local Exchange Carriers in Nebraska.*

On November 6, 2012, the Wireline Competition Bureau of the Federal Communications Commission (FCC) released a Report and Order mandating Incumbent Local Exchange Carriers (ILECs) submit certified study area boundary data in electronic format to the FCC. On December 11, 2012, the Commission opened the above-captioned investigation to assist with determining and implementing the most efficient method of complying with the mandates ordered by the FCC.

The Commission conducted a workshop on January 16, 2013, in which numerous parties participated. On February 26, 2013, the Bureau issued an Order on Reconsideration making substantive modifications to the initial Order. Further, on March 18, 2013, the Bureau announced procedures and deadlines for submission of study area boundaries. The Bureau established a deadline of April 12, 2013, for a state commission to file notice of its plan to submit study area boundary data on behalf of its ILECs with the FCC. Additionally, the Bureau established a June 28, 2013**,** deadline for state commission's to submit and certify the ILEC study area boundary data to the FCC.

On March 20, 2013, the Hearing Officer entered an order requiring any ILEC in Nebraska desiring the Commission to submit study area boundary data on its behalf to notify the Commission in writing by April 5, 2013.

All Nebraska ILECs requested the Commission file its study area boundary data with the FCC. The Commission contracted with a third party to assist in the creation and filing of the electronic boundary maps with the FCC. The Commission Staff contacted the ILECs and began a collaborative effort to compile an electronic map for submission to the FCC. Part of that work

included resolving any disagreements or discrepancies between adjacent carriers during the creation of the boundary maps.

Due to the short time allowed by the FCC to compile the map, the Commission requested and received permission from the FCC to submit the Nebraska maps as it was on June 28, 2013, and then clean up the last few areas where some resolution and modification was required. The map submitted by the Commission to the FCC in late June was approximately 95% complete. The Commission continues to work with ILECs and its contractor to resolve and make final adjustments to the map. The Commission plans to submit the finalized map of Nebraska ILEC boundaries sometime in late summer or early fall, 2013.

Access Rates/Intercarrier Compensation

The payment system between local telephone companies and long distance companies for access to the facilities of the local telephone company necessary to complete the calls is called intercarrier compensation. The charges billed by a local company to a long distance company to facilitate intercarrier compensation are called access charges. Under the traditional system, local telephone companies used access charges collected from competing carriers as one method to recover their costs of providing service. The amount of compensation from both the Federal and the State jurisdictions has been the subject of controversy since access charges began in 1984.

C-4426 *In the Matter of the Application of Zayo Group, LLC, Louisville, Colorado, seeking to establish its initial intrastate switched access tariff.*

On March 15, 2013, Zayo Group, LLC, out of Louisville, Colorado, filed an intrastate access tariff that proposed to establish its initial access rates in Nebraska. Pursuant to Commission established procedures, the proposed access tariff was published allowing any affected interexchange carrier desiring to negotiate the rates as proposed by Zayo Group 30 days to request such negotiations in writing.

On April 11, 2013, AT&T Communications of the Midwest, Inc., and TCG Omaha, filed written notice with Zayo Group and the Commission requesting negotiations. Pursuant to Commission procedures, the parties are negotiating. The docket is pending.

C-4459/ PI-185 *In the Matter of the Nebraska Public Service Commission, on its own motion, to Investigate and Monitor Compliance with Federally Mandated Intercarrier Compensation Reform.*

The Commission opened this proceeding on its own motion on April 17, 2012. This docket is the vehicle used to carry out the Commission's responsibility to facilitate and review compliance with federal access rate reform. Effective July 2, 2013, all price cap carriers and competitive local exchange carriers that benchmark access rates to price cap carriers were required to reduce intrastate terminating switched end office and transport rates and reciprocal

compensation, if above the carrier's interstate access rate, to parity with the interstate access rates. Likewise, all rate-of-return carriers and competitive local exchange carriers that benchmark access rates to rate-of-return carriers were required to reduce intrastate terminating switched end office and transport rates and reciprocal compensation, if above the carrier's interstate access rate, to parity with interstate access rates. The Commission issued several progression orders in 2013 establishing a procedural schedule and the framework for these access rate filings and the review of these filings to ensure compliance with federal law.

Telephone Directory

C-4529 *In the Matter of Dex One Corporation seeking a Declaratory Ruling that Neb. Admin. Code, Title 291, Chapter 5 § 002.22A is satisfied by delivery of a directory only to access line customers who affirmatively request one.*

On October 9, 2012, the Commission received a request from Dex One Corporation seeking a Declaratory Ruling that Section 002.22A of the Commission's directory rules were satisfied by the delivery of white page directory listings only to access line customers who affirmatively request one. In its application, Dex One stated it had been relieved of the mandatory white page directory saturation delivery requirements in a number of cities throughout the country. Dex One planned to modify its saturation delivery practice in the Omaha market only.

According to the Petition, Dex One white page directories would continue to be available free of charge to all consumers that affirmatively request one. Also, white page directories would continue to be available in an electronic format via its website.

On February 26, 2013, the Commission entered an order finding that the Commission's directory rules did not require a mandatory saturation delivery business model. The Commission's rules require directories to be updated on an annual basis and be readily available to every subscriber free of charge. Accordingly, the Commission could not prohibit Dex One from moving away from saturation delivery of white page directories in Omaha. However, the Commission also found that Dex One should provide places for local in-person pick up of white page directory listings for consumers who do not wish to wait for white page directories to be mailed to their home or business.

Voice Over Internet Protocol

Voice over Internet Protocol (VoIP) is the name given to technology that provides a voice communication service transmitted using a protocol developed to facilitate the "internet". In just a few short years VoIP has moved from a novelty used by hobbyists to a mainstream commercial product. The major difference between a traditional telephone call and a VoIP call is during a VoIP call the customer's analog voice signal is converted into a digital signal. The digital information is divided into a series of individual "packets" that are sent over a broadband internet connection instead of the traditional public switched telephone network (PSTN) to the

termination point. At the receiving end the packets of digital information are converted back into an analog voice signal for the called party's telephone.

Another way of visualizing this process is to consider that the conversation is occurring as a written exchange between two people through a series of individual letters, each letter having just a few words of the conversation. Depending upon which digital data packets are missing, out of order, or corrupted, the voice conversation may either have gaps or be hard to understand. Most commercial VoIP services do not use the traditional Internet networks to transmit the voice packets; instead dedicated data networks are used to ensure the desired quality of service.

A conversation between two VoIP customers from the same service provider will occur over the providers dedicated network and likely will never reach the PSTN, whereas a conversation between a VoIP customer and a traditional telephone customer must travel on the PSTN at some point. In the traditional telephone service environment, telephone calls passed from one company to another company are subject to access charges (for more on access charges, see the proceeding section in this part). Many VoIP providers design their networks to minimize access charges when the call is between two of their customers. Even if the parties are located in different cities, access charges rarely apply.

Broadband is traditionally used to access the Internet and Internet-related services. Jurisdictionally, broadband service has been defined by the FCC as "information services" and therefore is not under the telecommunications regulatory authority of the states. As more and more Internet-related services are being offered to the citizens of Nebraska, broadband connectivity and availability have become more important. For more information on broadband issues, see Part II of this report.

Deaf and Hard-of-Hearing Telecommunications: Relay Services

Telecommunications Relay Service (TRS) was created by Title IV of the Americans with Disabilities Act of 1990 (ADA). TRS allow a person who has a hearing or speech disability to access the nation's telephone system to communicate with voice telephone users through a relay provider and a Communications Assistant (CA). Such a definition includes services that enable two-way communication between an individual who uses a text telephone (TTY or TT) or other non-voice terminal device and an individual who does not have such a device. CAs transmit or relay written communication from a text telephone or other non-voice terminal device to a person using a standard telephone. The person using the standard telephone speaks to the CA who transmits the message to the hearing impaired individual.

Nebraska relay is funded through a monthly surcharge on all telephone numbers or functional equivalent, including wireless lines. Since 1991, the highest surcharge authorized by the Commission was $.10, the lowest authorized surcharge was $.03, with the rate usually set

between $.07 and $.05. For fiscal year 2013-14, the Commission lowered Nebraska surcharge to $.03.

The Prepaid Wireless Surcharge Act became effective on July 19, 2012. Under this Act, beginning January 1, 2013, each retail seller of prepaid wireless telecommunication services will collect the TRS surcharge directly from the consumer at the point-of-sale. The amount of the surcharge collected per retail transaction will be based on an annual determination by the Nebraska Department of Revenue utilizing a formula of the amount of wireless prepaid surcharges established by finding the sum of the following:

a. The percentage obtained by dividing the current annual Wireless E911 Surcharge by 50; and
b. The percentage obtained by dividing the amount of the Nebraska TRS Fund Surcharge by 50.

Amounts collected are remitted by retailers to the Department of Revenue. The Department of Revenue will then remit the collected amounts, less administrative costs not to exceed 2%, to the State Treasurer for credit to the Wireless E911 Fund and TRS Fund. Beginning January 2013 through June 2013, total prepaid wireless remittances received for the TRS fund were $24,069.

Nebraska Specialized Equipment Program

In 1995, the Legislature created the Nebraska Specialized Telecommunications Equipment Program (NSTEP) which enables qualifying deaf, hard-of-hearing and/or speech-impaired citizens to obtain specialized telecommunications equipment at no expense, subject to certain program restrictions. Funded by the Relay Surcharge, expensive telecommunications equipment, such as text telephones, amplifiers, amplified telephones, signaling devices and speech-generating devices have been made available to deaf, hard-of-hearing and/or speech-impaired consumers. For Fiscal Year 2012-13, $146,874 was expended by NSTEP compared to $237,000 for Fiscal Year 2011-12. NSTEP provided equipment to 559 households in Fiscal Year 2012-13, a decline from the 907 households served the previous year. The Commission's efforts have been focused on recruiting providers of wireless devices to participate in the program. The Commission has established business relationships with Sprint, GreatCall d/b/a Jitterbug, and Verizon Wireless as approved providers of wireless devices. The Verizon process allows an applicant to redeem their voucher through any retail Verizon store.

Outreach Campaign

In March 2013 through July 2013, Sprint, the TRS provider for Nebraska, in partnership with the Husker Sports Marketing, launched an outreach campaign promoting general awareness of Captioned Telephone (CapTel) service. The awareness campaign involved announcements during the radio broadcasts of Nebraska Baseball games, the Husker Red/White Spring Football Game, and on the "Sports Nightly" Evening Talk Show. The outreach campaign was statewide, but also targeted the Lincoln, Hastings-Kearney, North Platte and Omaha markets.

TRS Audit

The Commission completed their audits of telecommunications carriers and issued a Final Report, 'Summary of TRS Audit Report Findings And Recommendations of TRS Remittance Procedures' March 2013 to all incumbent, competitive and wireless carriers. The Commission contracted with Hurlbert CPA to conduct the audits beginning in September 2011. Twenty-one carriers and their affiliates were audited. Audit issues addressed in the Final Report centered on three areas; 1) The TRS surcharge description being correctly identified on customer's bills; 2) Directory information requirements and; 3) Annual bill insert or other notification.

Federal Issues Impacting Telecommunications Relay Services

For information on issues at the federal level regarding relay service, please visit the FCC's website at: http://www.fcc.gov/rulemaking/03-123-0 then follow, "Recent Commission Documents."

Telecommunications Relay Service Statistics

For Fiscal Year 2012-13, intrastate minutes of use for traditional TRS declined over 22% from the previous year. The trend in traditional relay minutes of use to lower levels has continued since Fiscal Year 1999-00, when significant declines in traditional TRS usage began to be evidenced. The declines are attributed mostly to emerging technologies such as smartphones and other text-based capable devices, as well as users migrating service selections to Video Relay Service (VRS) and Internet-Protocol (IP) services. It should be noted for the 2012-13 period, CapTel use also experienced a significant decline of over 21%, resulting in a net decline in total intrastate TRS minutes of use of around 22%.

The following table displays selected historical statistics that reflect the operation of the Nebraska Relay System and NSTEP. Note that prepaid wireless receipts are included in the months of January through June 2013 surcharge revenue totals. For questions or other inquiries regarding the data provided, please contact the Communications Department of the Commission.

Telecommunications Relay Service
Selected Historical Statistics (Session Minutes/CapTel Conversation Minutes)

	Total Calls (Outbound)	Ave Call Length (Outbound)	Total Minutes Of Use	Interstate Minutes	Intrastate Minutes	CapTel Intrastate CM	Monthly Activity Cost				Srchrg Revenue ($)	Srchrg Rate ($)
							TRS Prg. Trad'l ($Amt.)	TRS Prg. CapTel ($Amt.)	Total Program ($Amt.)	Total Equipment Program ($)		
Jul-11	3,355	5.43	19,671.38	1,862.63	17,808.76	23,258.38	19,945.81	41,632.50	61,578.31	23,780.06	100,741.02	$.05
Aug-11	3,725	4.96	20,163.07	2,183.06	17,980.01	23,927.87	20,137.60	42,830.89	62,968.49	24,026.35	100,755.68	$.05
Sep-11	3,938	4.98	20,957.42	2,201.67	18,755.75	21,248.78	21,006.42	38,035.32	59,041.74	14,599.12	100,727.82	$.05
Oct-11	3,405	5.01	18,404.77	1,825.74	16,579.03	22,626.38	18,568.51	40,501.22	59,069.73	21,154.55	100,380.02	$.05
Nov-11	3,446	4.81	17,672.25	1,427.61	16,244.64	21,776.02	18,194.00	38,979.08	57,173.08	15,488.52	100,509.05	$.05
Dec-11	3,236	4.99	15,983.95	1,495.58	15,983.95	24,793.84	17,902.02	44,380.97	62,282.99	19,578.42	100,615.86	$.05
Jan-12	3,449	4.84	17,897.80	1,696.69	16,201.11	24,521.15	18,145.24	43,892.86	62,038.10	11,275.06	100,314.89	$.05
Feb-12	2,938	5.15	16,235.44	1,766.29	14,469.15	24,231.45	16,205.45	43,374.30	59,579.75	12,706.55	99,708.49	$.05
Mar-12	2,642	4.93	14,205.14	1,272.53	12,932.61	24,846.63	14,484.52	44,475.47	58,959.99	13,266.46	100,264.82	$.05
Apr-12	2,626	4.84	13,809.10	1,307.21	12,501.89	22,988.49	14,002.12	41,149.40	55,151.52	42,033.25	99,866.11	$.05
May-12	2,655	5.19	14,921.51	1,544.41	13,377.10	24,252.63	14,982.35	43,412.21	58,394.56	24,626.18	100,264.14	$.05
Jun-12	2,656	4.89	14,172.40	1,729.55	12,443.15	23,507.19	13,936.33	42,077.87	56,014.20	14,076.64	99,548.69	$.05
Jul-12	4,920	5.12	14,215.78	1,552.63	12,663.15	21,604.75	14,182.73	38,672.50	52,855.23	14,036.34	82,955.91	$.04
Aug-12	5,091	5.04	14,690.31	1,862.52	12,827.79	19,379.89	14,367.12	34,690.00	49,057.12	11,968.53	80,188.14	$.04
Sep-12	4,658	4.96	13,187.52	1,580.06	11,607.46	16,093.79	13,000.36	28,807.88	41,808.24	13,249.47	79,966.58	$.04
Oct-12	5,348	5.11	16,290.40	1,991.57	14,298.83	18,076.96	16,014.69	32,357.76	48,372.45	13,457.55	80,691.21	$.04
Nov-12	4,510	5.03	13,105.68	1,479.58	11,626.10	17,188.35	13,021.23	30,767.15	43,788.38	11,430.39	80,543.12	$.04
Dec-12	5,053	5.31	15,308.60	2,211.54	13,097.06	18,673.33	14,668.71	33,425.26	48,093.97	8,478.60	80,520.71	$.04
Jan-13	4,590	5.22	13,541.27	1,908.68	11,632.59	19,142.13	13,028.50	34,264.41	47,292.91	14,769.33	80,770.20	$.04
Feb-13	4,041	5.44	12,041.52	1,894.66	10,146.86	17,067.42	11,364.48	30,550.68	41,915.16	16,965.16	82,826.09	$.04
Mar-13	4,680	5.11	12,940.73	1,655.10	11,285.63	17,158.13	12,639.91	30,713.05	43,352.96	6,108.23	84,652.28	$.04
Apr-13	5,105	4.69	12,452.40	1,448.43	11,003.97	19,607.71	12,324.45	35,097.80	47,422.25	16,658.67	85,645.17	$.04
May-13	5,133	5.08	13,794.00	1,576.30	12,217.70	20,692.91	13,683.82	37,040.31	50,724.13	7,423.66	83,388.21	$.04
Jun-13	4,696	4.82	12,474.76	1,257.41	11,217.35	16,956.49	12,563.43	30,352.12	42,915.55	12,328.00	83,950.74	$.04

Area Code Overlay and Other Numbering Issues

The North American Numbering Plan Administration, the organization tasked with assigning area codes in North America, provided the following information on the status of Nebraska's Area Codes as of August 28, 2013. The new Area Code 531 overlaid on the 402 Area Code is not scheduled to be placed into service until the 402 Area Code has only 10 remaining codes that can be assigned.

Area Code	NXX Codes Assigned	NXX Codes Available
308	357	419
402	757	24
531	Not In Service	775

Thousands Block Number Pooling

On February 24, 2006, the FCC granted the Commission's petition for authority to implement mandatory thousands-block number pooling in the 402 Area Code. The Commission used the authority granted to implement mandatory pooling in two steps.

On March 14, 2006, the Commission issued an order under Docket C-3049 implementing mandatory pooling in the rate centers served by Windstream Communications, CenturyLink and Frontier Communications d/b/a Citizens. Because these three carriers had been voluntarily participating in thousands block pooling, they were able to make the transition from voluntary pooling to mandatory pooling in the 155 rate centers they serve without any delay.

On May 3, 2006, the Commission conducted a workshop during which the NeuStar Pooling Administrator provided the remaining carriers in the 402 Area Code with information concerning the steps and typical time-line used when a rate center changes from voluntary pooling to mandatory pooling. Carriers were asked to review the proposed time line and provide feedback to the Commission by May 22, 2006. The Commission held a hearing on June 1, 2006, and sought comments on the prospect of designating all rate centers in the 402 Area Code as mandatory and a proposed implementation schedule for mandatory pooling in the remaining 94 rate centers. No parties submitted comments or testimony against designating the remaining 94 rate centers as mandatory pooling or proposed an alternate implementation date.

On June 27, 2006, the Commission issued an order under Docket C-3049 implementing mandatory pooling in the remaining 94 rate centers effective November 1, 2006. All carriers have completed the upgrade of their switches, have donated the excess blocks from their exchanges in the 402 Area Code, and are fully capable of participating in thousands block number pooling. Reports from the Pooling Administrator identify that voluntary pooling in

Nebraska has resulted in the following donation and utilization of thousands-blocks in Nebraska as of August 28, 2013:

Area Code	Number of Rate Centers	Rate Centers with Pooling	Thousands – Blocks Retained	Thousands - Blocks Assigned	Thousands - Blocks Available	Estimated Full NPA-NXX Codes Saved
308	170	73	522	474	614	53
402	281	264	1927	1366	1877	220

The Pooling Administrator estimates that 53 full codes in the 308 Area Code have been saved since the first thousands-blocks were donated in April 25, 2003. In the 402 Area Code, 220 full codes in have been saved by thousands-block number pooling since the first thousands-blocks were donated to the pool on October 31, 2001.

Local Number Portability

One of the benefits of thousands-block number pooling is the capability of implementing Local Number Portability (LNP). As carriers have upgraded their switching software to use numbering resources in blocks of a thousand, they have also gained the ability to support porting or moving an individual customer's number between carriers at the request of the customer. All Nebraska exchanges are capable of supporting LNP.

The ability to port a number between traditional wireline carriers is called intra-modal portability. Porting a number between a wireline carrier and a wireless carrier is called inter-modal portability. For wireline and interconnected Voice Over Internet Protocol (VoIP) carriers telephone numbers can be ported from one carrier to another in the same rate center. Telephone numbers assigned in one rate center cannot be ported to a carrier in another rate center.

Because the coverage area assigned to wireless carriers by the FCC is different than the wireline rate centers, customers can port a wireline number to a wireless carrier if the coverage area of the wireless carrier overlays the rate center to which the wireline number is associated. Customers may even physically move to a different rate center and keep the same wireline phone number as long as the wireless carrier has authority to provide coverage in the new rate center area. However, customers can only port wireless numbers to a wireline carrier in the same rate center as the wireless carrier with whom they currently have service.

The FCC issued an Order on May 20, 2010, mandating that effective August 1, 2010, all simple ports should be completed within one business day unless more time is requested by the

customer or the new carrier. Complex ports may take longer but should be completed within four business days.

Extended Area Service

Extended Area Service (EAS) allows customers in one exchange to place calls to and receive calls from another exchange, without paying additional long distance charges. The key points of the rules and regulations established by the Commission relating to EAS are:

- A petition seeking to establish EAS must contain the signatures of either 750 customers or 25% of the customers of the exchange, whichever is fewer.
- To determine if sufficient traffic exists to establish EAS. Certain traffic criteria must be met in at least 2 of the 3 most recent months for which data is available.
- A telephone company may file an Optional Enhanced Area Calling Plan (OEACP) as an alternative to EAS.
- If the minimum required signatures are obtained and there is sufficient traffic to meet the requirements, informational meetings must be held in the petitioning exchange to inform the public of the proposed rates for EAS and to assess the public's interest in receiving EAS.
- Following an unsuccessful attempt at implementing EAS, at least 12 months must lapse before additional attempts for EAS are made.
- When put to a vote, EAS must receive the support of more than 50% of voting customers in the exchange.

N11 Dialing Code

The FCC has designated various three-digit dialing, or "N11," codes for specific assigned purposes. The FCC granted state commissions the authority to implement the assigned N11 dialing codes. Nebraska has assigned the use of 211, 511, 711 and 811. Traditionally, 911 is reserved for access to emergency services, typically through a Public Service Answering Point (PSAP). For each N11 code, carriers may seek cost recovery for providing the service but must apply to the Commission for reimbursement. To date, no carriers have applied for cost recovery.

Information on specific N11 dialing codes implemented in Nebraska is provided in the following sections.

211 Dialing Code

The Commission assigned 211 to United Way of the Midlands for access to "First Call for Help." First Call for Help connects people in need of social services assistance with the appropriate providers of such services. Dialing 211 does not result in any additional telephone charges for the customer. Nebraska now has statewide 211 dialing for First Call for Help.

311 Dialing Code

On July 1, 2011, the City of Omaha submitted an application to the Commission to be assigned the use of 311 for all Omaha city services. If assigned, dialing 311 within the City of Omaha would connect the caller to a city hotline offering assistance to residents and collecting suggestions, comments, complaints and requests in both English and Spanish. No other communities in Nebraska have requested the use of 311 dialing.

411 Dialing Code

411 is the nationally assigned access code for local directory services. When a consumer dials 411 they are connected with directory services for their local, wireless, or long distance service provider. Providers may charge a fee for use of the 411 service. Such fees and charges are established by tariff filings with the Commission.

511 Dialing Code

Weather reports and route specific road conditions can be obtained 24 hours a day for interstate and state highways throughout Nebraska by dialing 511 from any telephone in Nebraska. There is no charge to callers. The Nebraska State Patrol and Department of Roads manage this program.

611 Dialing Code

611 is assigned nationally as the access code for carriers repair service organizations.

711 Dialing Code

The FCC designated 711 as the dialing code for access to all Telecommunication Relay Services (TRS). The Commission opened Docket C-2417 to examine issues related to the implementation of 711 for access to TRS in Nebraska. On January 9, 2001, the Commission entered an order establishing June 29, 2001, as the implementation deadline for 711.

For more information on Nebraska TRS, see the previous section in this Part entitled Deaf and Hard-of-Hearing Telecommunications: Relay Services.

811 Dialing Code

Neb. Rev. Stat. §§76-2301 – 76-233 established the One-Call Notification System Act to prevent injury, property damage, and the interruption of utility services resulting from damage to underground facilities by excavating. The one-call notification system for digging has been termed, “Digger Hotline”. Since 1995, Diggers Hotline has been the link between those needing

to excavate and the utility owners and operators of underground facilities. The Diggers Hotline center in Nebraska is located in Omaha with the State Fire Marshal's Office overseeing and organizing the One-Call Notification System.

On March 14, 2005, the FCC designated 811 as the national abbreviated code for Diggers Hotline and delegated authority to states to address the technical and operation issues associated with the implementation of the 811 code.

On December 19, 2006, the Commission issued an order in Docket C-3479/ PI-107, setting April 13, 2007, as the deadline for all carriers to implement the routing of 811 to Diggers Hotline and required all carriers to include 811 information in all directories published after April 1, 2007. 811 dialing has been implemented in all Nebraska telephone exchanges.

911 Dialing Code

911 is the nationally designated access code to Emergency Services. Detailed information on the state of 911 in Nebraska is found in Part IV of this report.

PART VI

Nebraska Telecommunications Carriers:

Rates, Service Quality and Complaints

Local Exchange Carriers

Nebraska Local Exchange Carriers, Rates & Lines Served

This section of the report provides information on local exchange carriers currently certificated to serve in Nebraska, the business and residential local rates charged by Nebraska carriers, and a listing of communities and the local carriers offering service in those communities.

The financial information related to local exchange company earnings is not being reported for 2012. Competition has been introduced into portions of this market and company-specific data may reveal competitively sensitive information. Thus, the annual reports filed by the local exchange companies remain available at the Commission for use by Commissioners and Commission staff. Portions of the reports that are not proprietary are available for public inspection.

The Telecommunications Act of 1996 provided for competition in the local exchange service market. For more information on the 1996 Act, see Part I of this report. The Commission has authorized a number of CLECs to compete with the incumbent local companies in Nebraska. The following table provides details on the local exchange market in Nebraska for the past two years.

	2011	2012	Change
Total Access Lines Served in the State	765,129	740,787	(24,342)
Total Access Lines Served by ILECs	456,090	430,869	(25,609)
Total Access Lines Served by CLECs	309,039	309,918	879
Percentage of Total Access Lines Served by CLECs	40.4%	41.8%	1.4%
Percent of Access Lines Having Competitive Alternatives	90.8%	90.8%	0.0
Number of Access Lines Without Competitive Alternatives	71,030	67,753	(3,277)
Total Number of Exchanges	469	450	(19)
Total Number of Exchanges Without Competitive Alternatives	211	200	(11)

As of December 31, 2012, 41 incumbent local exchange carriers (including cooperative telephone companies) and 96 competitive local exchange carriers have been certificated by the Commission to operate in Nebraska. Windstream Nebraska, Inc. is the largest carrier with 166,833 access lines. The following table contains a listing of Nebraska carriers, the number of residential lines and business lines served by each carrier, and the current business and residential rates charged by those companies. The rates listed are for basic dial-tone service as of September 1, 2013, and exclude subscriber line charges, extended area service rates, and other optional charges.

Carriers	Residential Rates	Residential Lines Served	Business Rates	Business Lines Served
AT&T Communication of the Midwest	$25.95	363	$31.20	41,071
Allo Communications	$18.00	1,055	$31.00	5,646
Applied Communications Technology Inc.	$21.40	1	$44.80	1
Arapahoe Telephone Company Group 1:Arapahoe, Hendley, Holbrook Group 2:Brule, Farnam, Loomis, Overton	 $17.50 $17.50	1,272	 $27.50 $37.55	539
Arlington Telephone Company	$19.95	669	$30.00	99
Benkelman Telephone Company	$19.95	634	$27.50	277
Blair Telephone Company	$19.95	4,336	$30.00	1,467
Bullseye Telecom, Inc.	N/A	0	$27.55	584
Cambridge Telephone Company	$17.50	638	$27.50	292
CenturyLink QC	$19.15	70,380	$31.00	74,611
Charter Fiberlink-Nebraska LLC	$24.99	18,853	$29.99	3,194
Citizens Telecommunications Company of Nebraska (d/b/a Frontier)	$19.50	16,019	$29.50	15,446
Clarks Telecommunications Company	$17.50	509	$27.50	151
Comtech21, LLC	N/A	0	N/A	1
Consolidated Telco, Inc.	$19.95	827	$27.50	329
Consolidated Telecom, Inc.	$19.95	643	$27.50	170
Consolidated Telephone Company	$19.95	1,839	$27.50	585
Cox Nebraska Telecom LLC	$17.65	103,634	$26.89	52,419
Cozad Telephone Company	$17.50	1,111	$27.50	653
Curtis Telephone Company	$19.95	358	$27.50	176
Dalton Telephone Company	$19.25	619	$29.95	168
Diller Telephone Company	$19.95	588	$27.50	127
dishNET Wireless, LLC	35.00	332	N/A	0
Eastern Nebraska Telephone Company	$19.95	1,543	$30.00	852
Elsie Telecom, Inc.	$19.25	118	$29.95	35
Entelegent Solutions, Inc.	19.99	0	19.99	9
Ernest Communications, Inc.	$28.95	2	$28.95	38
FiberComm, Inc.	$19.00	187	$19.00	544
First Communications, LLC	$31.00	57	$27.55	0
Glenwood Telephone Membership Corporation	$17.50	1,716	$27.50	352
Granite Telecommunications	$18.15	0	$27.55	5,664
Great Plains Communications	$19.20	16,670	$29.95	5,972
Hamilton Telephone Company	$17.95	3,219	$17.95	1,673
Hartington Telephone Company	$17.50	856	$27.50	404
Hartman Telephone Exchange	$19.95	258	$27.50	68
Hemingford Cooperative Telephone Company	$19.90	515	$27.50	164
Henderson Cooperative Telephone d/b/a	$17.50	600	$27.50	233

Carriers	Residential Rates	Residential Lines Served	Business Rates	Business Lines Served
Mainstay				
Hershey Cooperative Telecom, Inc.	$17.50	559	$27.50	99
Hooper Telephone d/b/a Westel Systems	$17.50	599	$27.50	193
Huntel Cablevision, Inc. d/b/a American Broadband Nebraska Communications, Inc.	$19.95	1,416	$30.00	842
Ionex Communications North, Inc. Qwest Exchange	$20.00	128	$37.55	361
K&M Telephone Company	$17.50	373	$17.50	85
Keystone-Arthur Telephone Company	$17.50	280	$27.50	79
Long Lines Siouxland LLC	$10.00	1,010	$25.00	409
MCImetro Access Transmission Services	$20.99	206	$30.99	340
McLeodUSA Telecommunications Services, Inc. d/b/a Paetec Business Services	N/A	0	$29.50	270
Matrix Telecom, Inc.	$34.95	48	$43.75	8
Metropolitan Telecommunications of Nebraska Inc.	$18.15	0	$27.55	647
Mobius Communications Company	$17.50	708	$27.50	0
Nebraska Technology & Telecommunications, Inc. (NT&T) Group 1 Group 2 Group 3 Group 4 Group 5 Group 6	 $18.15 $17.50 $17.50 $17.50 $17.50 $17.50	13,420	 $27.55 $27.50 $30.10 $30.10 $30.10 $30.10	2,254
Nebraska Central Telephone Company	$17.50	4,035	$27.50	1,377
Northeast Nebraska Telephone Company	$17.50	4,669	$27.50	1,031
NOS Communications	$18.15	0	$32.84	10
OrbitCom, Inc.	$18.50	72	$27.00	2,716
Pierce Telephone Company, Inc.	$17.50	1,041	$20.45	361
Pinpoint Communications Inc.	$17.50	520	$27.50	186
Plainview Telephone Company	$19.95	647	$27.50	240
PNG Telecommunications, Inc.	*ICB	1	*ICB	0
Quantumshift Communications, Inc.	N/A	0	32.84	12
Rock County Telephone Company	$19.95	541	$30.00	173
Sodtown Telephone Company	$17.50	65	$17.50	3
Southeast Nebraska Telephone Company	$17.50	1,943	$27.50	730
Stanton Telephone Company, Inc.	$17.50	777	$27.50	187
TCG Omaha	N/A	0	$42.55	6,020
Three River Communications, LLC	$16.34	496	$24.80	304
Three River Telco	$17.50	866	$27.50	224
Time Warner Cable	$49.95	27,259	N/A	6,030

Carriers	Residential Rates	Residential Lines Served	Business Rates	Business Lines Served
Transnational Communications International, Inc.	N/A	0	$22.00	142
United Telephone Co. of the West (d/b/a CenturyLink)	$17.50	8,249	$27.50	3,304
Wauneta Telephone Company	$19.95	402	$27.50	124
Windstream Nebraska, Inc.	$17.50	93,176	$31.99	73,657
Windstream Communications of the Midwest, Inc.	$16.00	285	$37.00	10,069
XO Communications Services, LLC	N/A	0	29.35	74

Listing of Nebraska Communities & Serving Companies

Note: This list is not entended to be an exhaustive list but reflects the best of the PSC's knowledge.

COMMUNITIES	COMPANIES SERVING
ADAMS	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
AINSWORTH	Qwest Corporation dba CenturyLink QC
	AT&T
	BullsEye Telecom Inc.
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Ionex Communications
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
	Three Rivers
ALBION	Citizens Telecommunications
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
ALDA	Orbitcom Inc.
ALEXANDRIA	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
ALLEN	Northeast Nebraska Telephone Company
ALLIANCE	Qwest Corporation dba CenturyLink QC
	Allo Communications
	AT&T
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	First Communications, LLC
	Granite Telecommunications LLC
	Ionex Communications
	Matrix Telecom, Inc.
	Metropolitan Telecommunications of Nebraska
	Mobius Communications
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
ALMA	Citizens Telecommunications
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Pinpoint Communications

COMMUNITIES	COMPANIES SERVING
AMHERST	Citizens Telecommunications
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
ANSELMO	Consolidated Telephone Co.
ANSLEY	Nebraska Central Telephone Company
ARAPAHOE	Arapahoe Telephone Company
	Applied Communication Tech
ARCADIA	Nebraska Central Telephone Company
ARCHER	Great Plains Communications, Inc.
ARLINGTON	Arlington Telephone Company
ARNOLD	Great Plains Communications, Inc.
ARTHUR	Consolidated Telephone Co.
ASHBY	Consolidated Telephone Co.
ASHLAND	Windstream Nebraska, Inc.
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
ASHTON	Nebraska Central Telephone Company
ATKINSON	Qwest Corporation dba CenturyLink QC
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Matrix Telecom, Inc.
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
ATLANTA	Qwest Corporation dba CenturyLink QC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Pinpoint Communications
AUBURN	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Time Warner Cable Information Services
AURORA	Hamilton Telephone Company

COMMUNITIES	COMPANIES SERVING
AVOCA	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
AXTELL	Qwest Corporation dba CenturyLink QC
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Matrix Telecom, Inc.
	Nebraska Technology & Telecommunications
BANCROFT	Great Plains Communications, Inc.
BARNESTON	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
BARTLETT	Northeast Nebraska Telephone Company
BARTLEY	Cambridge Telephone Company
BASSETT	Rock County Telephone Company
BATTLE CREEK	Citizens Telecommunications
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
BAYARD	United Telephone Company of the West dba CenturyLink
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
BEATRICE	Windstream Nebraska, Inc.
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
BEAVER CITY	Citizens Telecommunications
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
BEAVER CROSSING	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
BEEMER	Great Plains Communications, Inc.
BELDON	Eastern Nebraska Telephone Company
BELGRADE	Great Plains Communications, Inc.
BELLEVUE	See Omaha
BELLWOOD	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
BENEDICT	Windstream Nebraska, Inc.
	Granite Telecommunications LLC

COMMUNITIES	COMPANIES SERVING
BENEDICT Cont.	Nebraska Technology & Telecommunications
BENKELMAN	Benkelman Telephone Company
BENNET	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
BENNINGTON	Qwest Corporation dba CenturyLink QC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
BERTRAND	Citizens Telecommunications
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Pinpoint Communications
BIG SPRINGS	Qwest Corporation dba CenturyLink QC
	Allo Communications
	BullsEye Telecom Inc.
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Matrix Telecom, Inc.
	Nebraska Technology & Telecommunications
BINGHAM	Consolidated Telephone Co.
BLADEN	Glenwood Telephone Membership Corp.
BLAIR	Blair Telephone Company
	AT&T
BLOOMFIELD	Great Plains Communications, Inc.
BLOOMINGTON	Citizens Telecommunications
	Granite Telecommunications LLC
BLUE SPRINGS	See Wymore
BLUE HILL	Glenwood Telephone Membership Corp.
BOELUS	Nebraska Central Telephone Company
BRADSHAW	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
BRADY	Consolidated Telecom, Inc.
BRAINARD	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
BREWSTER	Consolidated Telephone Co.
BRIDGEPORT	Qwest Corporation dba CenturyLink QC
	Allo Communications

COMMUNITIES	COMPANIES SERVING
BRIDGEPORT Cont.	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Metropolitan Telecommunications of Nebraska
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
BRISTOW	Northeast Nebraska Telephone Company
BROADWATER	United Telephone Company of the West dba CenturyLink
	Granite Telecommunications LLC
BROCK	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
BROKEN BOW	Qwest Corporation dba CenturyLink QC
	Allo Communications
	AT&T
	BullsEye Telecom Inc.
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Matrix Telecom, Inc.
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
BROWNLEE	Consolidated Telephone Co.
BROWNVILLE	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
BRULE	Arapahoe Telephone Company
BRUNING	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
BRUNO	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
BRUNSWICK	Citizens Telecommunications
BURCHARD	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
BURR	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
BURWELL	Nebraska Central Telephone Company
BUSHNELL	Dalton Telephone Company
BUTTE	Northeast Nebraska Telephone Company

COMMUNITIES	COMPANIES SERVING
BYRON	Great Plains Communications, Inc.
CAIRO	Qwest Corporation dba CenturyLink QC
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
CALLAWAY	Great Plains Communications, Inc.
CAMBRIDGE	Cambridge Telephone Company
CAMPBELL	Glenwood Telephone Membership Corp.
CARLETON	Windstream Nebraska, Inc.
CARROLL	Eastern Nebraska Telephone Company
CEDAR BLUFFS	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
	Time Warner Cable Information Services
CEDAR RAPIDS	Great Plains Communications, Inc.
CENTER	Great Plains Communications, Inc.
CENTRAL CITY	Qwest Corporation dba CenturyLink QC
	Allo Communications
	AT&T
	BullsEye Telecom Inc.
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Ionex Communications
	Matrix Telecom, Inc.
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
CERESCO	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
CHADRON	Qwest Corporation dba CenturyLink QC
	Allo Communications
	BullsEye Telecom Inc.
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Ionex Communications
	Metropolitan Telecommunications of Nebraska
	Mobius Communications

COMMUNITIES	COMPANIES SERVING
CHADRON Cont.	Nebraska Technology & Telecommunications
	Orbitcom Inc.
CHAMBERS	K & M Telephone Company, Inc.
CHAPMAN	Great Plains Communications, Inc.
CHAPPELL	United Telephone Company of the West dba CenturyLink
	Granite Telecommunications LLC
CHESTER/HUBBELL/ REYNOLDS	Great Plains Communications, Inc.
CLARKS	Clarks Telecommunications Co.
CLARKSON	Qwest Corporation dba CenturyLink QC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
CLATONIA	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
CLAY CENTER	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
CLEARWATER	Northeast Nebraska Telephone Company
CODY	Great Plains Communications, Inc.
COLERIDGE	Northeast Nebraska Telephone Company
COLON	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
COLUMBUS	Citizens Telecommunications
	AT&T
	BullsEye Telecom Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Time Warner Cable Information Services
COMSTOCK	Nebraska Central Telephone Company
COOK	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
CORDOVA	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
CORTLAND	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications

COMMUNITIES	COMPANIES SERVING
COTESFIELD	Great Plains Communications, Inc.
COZAD	Cozad Telephone Company
CRAB ORCHARD	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
CRAIG	Northeast Nebraska Telephone Company
CRAWFORD/WHITNEY	Qwest Corporation dba CenturyLink QC
	Allo Communications
	BullsEye Telecom Inc.
	Granite Telecommunications LLC
	Ionex Communications
	Matrix Telecom, Inc.
	Metropolitan Telecommunications of Nebraska
	Mobius Communications
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
CREIGHTON	Great Plains Communications, Inc.
CRESTON	See Humphrey
CRETE	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Time Warner Cable Information Services
CROFTON	Great Plains Communications, Inc.
CROOKSTON	Great Plains Communications, Inc.
CULBERTSON	Great Plains Communications, Inc.
CURTIS	Curtis Telephone Company, Inc.
DAKOTA CITY	Qwest Corporation dba CenturyLink QC - See South Sioux City
DALTON	Dalton Telephone Company
DANBURY	Hartman Telephone Exchanges, Inc.
DANNEBROG	Nebraska Central Telephone Company
DAVENPORT	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
DAVEY	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
DAVID CITY	Windstream Nebraska, Inc.
	Granite Telecommunications LLC

COMMUNITIES	COMPANIES SERVING
DAVID CITY Cont.	Nebraska Technology & Telecommunications
	Time Warner Cable Information Services
DAWSON	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
DAYKIN	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
DECATUR	Northeast Nebraska Telephone Company
DENTON	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
	Time Warner Cable Information Services
DESHLER	Great Plains Communications, Inc.
DEWEESE	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
DEWITT	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
DILLER	Diller Telephone Company, Inc.
DIX	Dalton Telephone Company
DIXON	Northeast Nebraska Telephone Company
DODGE	Great Plains Communications, Inc.
DONIPHAN	Hamilton Telephone Company
DORCHESTER	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
DOUGLAS	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
DUBOIS	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
DUNBAR	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
DUNCAN	Citizens Telecommunications
	Granite Telecommunications LLC
DUNNING	Consolidated Telephone Co.
DWIGHT	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
EAGLE	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications

COMMUNITIES	COMPANIES SERVING
EDGAR	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
EDISON	Citizens Telecommunications
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Pinpoint Communications
ELBA	Nebraska Central Telephone Company
ELGIN	Great Plains Communications, Inc.
ELK CREEK	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
ELKHORN/WATERLOO	Qwest Corporation dba CenturyLink QC
	BullsEye Telecom Inc.
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	McLeodUSA
	MCImetro Access Transmission Service LLC
	Nebraska Technology & Telecommunications
ELM CREEK/ODESSA	Qwest Corporation dba CenturyLink QC
	Charter Fiberlink-Nebraska, LLC
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Ionex Communications
	Nebraska Technology & Telecommunications
ELMWOOD	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
ELSIE	Elsie Communications, Inc.
ELWOOD	Qwest Corporation dba CenturyLink QC
	Allo Communications
	AT&T
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Metropolitan Telecommunications of Nebraska
	Nebraska Technology & Telecommunications
EMERALD	See Lincoln

COMMUNITIES	COMPANIES SERVING
EMERSON	Qwest Corporation dba CenturyLink QC
	Granite Telecommunications LLC
	Huntel Cablevision
	Nebraska Technology & Telecommunications
ERICSON	Nebraska Central Telephone Company
EUSTIS	Consolidated Telecom, Inc.
EWING	Great Plains Communications, Inc.
EXETER	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
FAIRBURY	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Time Warner Cable Information Services
FAIRFIELD	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
FAIRMONT	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
FALLS CITY	Southeast Nebraska Telephone Company
	Time Warner Cable Information Services
FARNAM	Arapahoe Telephone Company
FARWELL	Qwest Corporation dba CenturyLink QC
	Allo Communications
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
FILLEY	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
FIRTH	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
FORT CALHOUN	Blair Telephone Company
FRANKLIN	Citizens Telecommunications
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
FREMONT	Qwest Corporation dba CenturyLink QC

COMMUNITIES	COMPANIES SERVING
FREMONT Cont.	AT&T
	BullsEye Telecom Inc.
	dishNET Wireline, LLC
	First Communications, LLC
	Granite Telecommunications LLC
	Huntel Cablevision
	Ionex Communications
	Matrix Telecom, Inc.
	McLeodUSA
	MCImetro Access Transmission Service LLC
	Metropolitan Telecommunications of Nebraska
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
	Time Warner Cable Information Services
	Trans National Communications International, Inc.
	Windstream of the MidWest Inc
FRIEND	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
FULLERTON	Qwest Corporation dba CenturyLink QC
	Granite Telecommunications LLC
	Ionex Communications
	Metropolitan Telecommunications of Nebraska
	Nebraska Technology & Telecommunications
FUNK	Glenwood Telephone Membership Corp.
GARLAND	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
GENEVA	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
GENOA	Citizens Telecommunications
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
GERING	United Telephone Company of the West dba CenturyLink
	Allo Communications
	BullsEye Telecom Inc.

COMMUNITIES	COMPANIES SERVING
GERING Cont.	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
GIBBON	Nebraska Central Telephone Company
	AT&T
GILTNER	Hamilton Telephone Company
GLENVIL	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
GORDON	Great Plains Communications, Inc.
GOTHENBURG	Qwest Corporation dba CenturyLink QC
	Allo Communications
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Ionex Communications
	Matrix Telecom, Inc.
	Nebraska Technology & Telecommunications
GRAFTON	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
GRAND ISLAND	Qwest Corporation dba CenturyLink QC
	Allo Communications
	AT&T
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	dishNET Wireline, LLC
	First Communications, LLC
	Granite Telecommunications LLC
	Ionex Communications
	McLeodUSA
	MCImetro Access Transmission Service LLC
	Matrix Telecom, Inc.
	Metropolitan Telecommunications of Nebraska
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
	TCG Omaha
	Trans National Communications International, Inc.

COMMUNITIES	COMPANIES SERVING
GRAND ISLAND Cont.	Windstream of the MidWest Inc
GRANT	Great Plains Communications, Inc.
GREELEY	Citizens Telecommunications
	Nebraska Technology & Telecommunications
GREENWOOD	Windstream Nebraska, Inc.
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
GRESHAM	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
GRETNA	Qwest Corporation dba CenturyLink QC
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	MCI metro Access Transmission Service LLC
	Nebraska Technology & Telecommunications
GUIDE ROCK	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
GURLEY	Dalton Telephone Company
HADAR	Orbitcom Inc.
HAIGLER	Hartman Telephone Exchanges, Inc.
HALLAM	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
HALSEY	Consolidated Telephone Co.
HAMPTON	Hamilton Telephone Company
HANSON	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
HARBINE	Diller Telephone Company, Inc.
HARDY	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
HARRISON	Qwest Corporation dba CenturyLink QC
	Allo Communications
	Granite Telecommunications LLC
	Ionex Communications
	Matrix Telecom, Inc.
	Mobius Communications

COMMUNITIES	COMPANIES SERVING
HARRISON Cont.	Nebraska Technology & Telecommunications
	Orbitcom Inc.
HARTINGTON	Hartington Telecommunications Co., Inc.
HARVARD	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
HASTINGS	Windstream Nebraska, Inc.
	AT&T
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
HAY SPRINGS	Great Plains Communications, Inc.
HAYES CENTER	Great Plains Communications, Inc.
HEARTWELL	Citizens Telecommunications
	BullsEye Telecom Inc.
	Pinpoint Communications
HEBRON	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
HEMINGFORD	Hemingford Cooperative Telephone Company
HENDERSON	Henderson Cooperative Telephone
HENDLEY	Arapahoe Telephone Company
HERMAN	Great Plains Communications, Inc.
HERSHEY	Hershey Cooperative Telephone
HICKMAN	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
HILDRETH	Citizens Telecommunications
HOLBROOK	Arapahoe Telephone Company
HOLDREGE	Qwest Corporation dba CenturyLink QC
	Allo Communications
	AT&T
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Ionex Communications

COMMUNITIES	COMPANIES SERVING
HOLDREGE Cont.	Nebraska Technology & Telecommunications
	Orbitcom Inc.
	Pinpoint Communications
HOLSTEIN	Glenwood Telephone Membership Corp.
HOMER	Qwest Corporation dba CenturyLink QC
	AT&T
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
HOOPER	Hooper Telephone Company
HORDVILLE	Hamilton Telephone Company
HOSKINS	Pierce Telephone Company, Inc.
HOWELLS	Qwest Corporation dba CenturyLink QC
	Granite Telecommunications LLC
	Ionex Communications
	Matrix Telecom, Inc.
	Nebraska Technology & Telecommunications
HUBBELL	See Chester
HUMBOLT	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
	Time Warner Cable Information Services
HUMPHREY/CRESTON	Qwest Corporation dba CenturyLink QC
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Ionex Communications
	Matrix Telecom, Inc.
	McLeodUSA
	Nebraska Technology & Telecommunications
HYANNIS	Consolidated Telephone Co.
IMPERIAL	Great Plains Communications, Inc.
INDIANOLA	Great Plains Communications, Inc.
INMAN	K & M Telephone Company, Inc.
ITHACA	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
JACKSON	Northeast Nebraska Telephone Company
JANSEN	Windstream Nebraska, Inc.

COMMUNITIES	COMPANIES SERVING
JANSEN Cont.	Nebraska Technology & Telecommunications
JOHNSON	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
JOHNSTON	Three River Telco
JULIAN	Windstream Nebraska, Inc.
JUNIATA	Windstream Nebraska, Inc.
	Charter Fiberlink-Nebraska, LLC
	Nebraska Technology & Telecommunications
KEARNEY	Citizens Telecommunications
	AT&T
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Windstream of the Midwest Inc.
KENESAW	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
KENNARD	Blair Telephone Company
KEYSTONE	Keystone - Arthur Telephone Company
KILGORE	Great Plains Communications, Inc.
KIMBALL	United Telephone Company of the West dba CenturyLink
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
LAUREL	Qwest Corporation dba CenturyLink QC
	AT&T
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Huntel Cablevision
	Nebraska Technology & Telecommunications
LAVISTA	See Omaha
LAWRENCE	Glenwood Telephone Membership Corp.
LEMOYNE	Keystone - Arthur Telephone Company
LEBANON	Hartman Telephone Exchanges, Inc.
LEIGH	Citizens Telecommunications
	Nebraska Technology & Telecommunications

COMMUNITIES	COMPANIES SERVING
LEWELLEN	United Telephone Company of the West dba CenturyLink
	Granite Telecommunications LLC
LEXINGTON	Qwest Corporation dba CenturyLink QC
	Allo Communications
	AT&T
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	dishNET Wireline, LLC
	First Communications, LLC
	Granite Telecommunications LLC
	Ionex Communications
	Metropolitan Telecommunications of Nebraska
	Nebraska Tech & Telecom
	Orbitcom Inc.
	Trans National Communications International, Inc.
LIBERTY	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
LINCOLN/ EMERALD	Windstream Nebraska, Inc.
	AT&T
	Ernest Communications, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	NOS Communications
	Time Warner Cable Information Services
LINDSAY	Citizens Telecommunications
	Nebraska Technology & Telecommunications
LINWOOD	Northeast Nebraska Telephone Company
LITCHFIELD	Nebraska Central Telephone Company
LODGEPOLE	Dalton Telephone Company
LONG PINE	Northeast Nebraska Telephone Company
LOOMIS	Arapahoe Telephone Company
LOUISVILLE	Windstream Nebraska, Inc.
	Charter Fiberlink-Nebraska, LLC
	Nebraska Technology & Telecommunications
LOUP CITY	Qwest Corporation dba CenturyLink QC
	Charter Fiberlink-Nebraska, LLC
	dishNET Wireline, LLC

COMMUNITIES	COMPANIES SERVING
LOUP CITY Cont.	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
LYNCH	Three River Telco
LYMAN	United Telephone Company of the West dba CenturyLink
	BullsEye Telecom Inc.
	Granite Telecommunications LLC
LYONS	Qwest Corporation dba CenturyLink QC
	Granite Telecommunications LLC
	Huntel Cablevision
	Nebraska Technology & Telecommunications
MACY	Eastern Nebraska Telephone Company
MADISON	Citizens Telecommunications
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
MADRID	Consolidated Telco, Inc.
MALCOLM	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
MARQUETTE	Hamilton Telephone Company
MARTELL	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
MARTINSBURG	Northeast Nebraska Telephone Company
MASON CITY	Nebraska Central Telephone Company
MAXWELL	Consolidated Telecom, Inc.
MAYWOOD	Consolidated Telco, Inc.
MCCOOK	Qwest Corporation dba CenturyLink QC
	Allo Communications
	BullsEye Telecom Inc.
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Ionex Communications
	Metropolitan Telecommunications of Nebraska
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
	Pinpoint Communications
MCCOOL JUNCTION	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications

COMMUNITIES	COMPANIES SERVING
MEAD	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
MEADOW GROVE	Eastern Nebraska Telephone Company
MERNA	Consolidated Telephone Co.
MERRIMAN	Great Plains Communications, Inc.
MILFORD	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
MILLER	Citizens Telecommunications
	Nebraska Technology & Telecommunications
MILLIGAN	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
MINATARE	United Telephone Company of the West dba CenturyLink
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
MINDEN	Qwest Corporation dba CenturyLink QC
	Allo Communications
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
	Pinpoint Communications
MIRAGE FLATS	Great Plains Communications, Inc.
MITCHELL	United Telephone Company of the West dba CenturyLink
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
MONROE	Citizens Telecommunications
MORRILL	United Telephone Company of the West dba CenturyLink
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
MULLEN	Consolidated Telephone Co.
MURDOCK	Windstream Nebraska, Inc.

COMMUNITIES	COMPANIES SERVING
MURDOCK Cont.	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
MURRAY	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
NAPER	Three River Telco
NAPONEE	Citizens Telecommunications
NEBRASKA CITY	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Time Warner Cable Information Services
NEHAWKA	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
NELIGH	Citizens Telecommunications
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
NELSON	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
NEMAHA	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
NEWCASTLE	Northeast Nebraska Telephone Company
NEWMAN GROVE	Citizens Telecommunications
	Nebraska Technology & Telecommunications
NEWPORT	Rock County Telephone Company
NIOBRARA	Great Plains Communications, Inc.
NORFOLK	Qwest Corporation dba CenturyLink QC
	AT&T
	BullsEye Telecom Inc.
	dishNET Wireline, LLC
	First Communications, LLC
	Granite Telecommunications LLC
	Ionex Communications
	Matrix Telecom, Inc.
	McLeodUSA
	MCImetro Access Transmission Service LLC
	Metropolitan Telecommunications of Nebraska
	Nebraska Technology & Telecommunications

COMMUNITIES	COMPANIES SERVING
NORFOLK Cont.	Orbitcom Inc.
	TCG Omaha
	Trans National Communications Intl, Inc.
NORMAN	Glenwood Telephone Membership Corp.
NORTH BEND	Great Plains Communications, Inc.
NORTH BURWELL	Nebraska Central Telephone Company
NORTH LOUP	Nebraska Central Telephone Company
NORTH PLATTE	Qwest Corporation dba CenturyLink QC
	Allo Communications
	AT&T
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	dishNET Wireline, LLC
	First Communications, LLC
	Granite Telecommunications LLC
	Ionex Communications
	MCImetro Access Transmission Service LLC
	Matrix Telecom, Inc.
	Metropolitan Telecommunications of Nebraska
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
	Pinpoint Communications
	Trans National Communications Intl, Inc.
	Windstream of the Midwest Inc.
ONEILL	Qwest Corporation dba CenturyLink QC
	BullsEye Telecom Inc.
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Ionex Communications
	Matrix Telecom, Inc.
	Metropolitan Telecommunications of Nebraska
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
OAKDALE	Great Plains Communications, Inc.
OAKLAND	Qwest Corporation dba CenturyLink QC
	First Communications, LLC
	Granite Telecommunications LLC

COMMUNITIES	COMPANIES SERVING
OAKLAND Cont.	Huntel Cablevision
	Matrix Telecom, Inc.
	Metropolitan Telecommunications of Nebraska
	Nebraska Technology & Telecommunications
OBERT	Northeast Nebraska Telephone Company
OCONTO	Great Plains Communications, Inc.
OCTAVIA	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
ODELL	Diller Telephone Company, Inc.
ODESSA	See Elm Creek
OGALLALA	Qwest Corporation dba CenturyLink QC
	Allo Communications
	AT&T
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	First Communications, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
OHIOWA	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
OMAHA/ BELLEVUE/LAVISTA/ PAPILLION	Qwest Corporation dba CenturyLink QC
	Allo Communications
	AT&T
	BullsEye Telecom Inc.
	ComTel Telecommunications
	Cox Nebraska Telecom LLC
	dishNET Wireline, LLC
	First Communications, LLC
	Granite Telecommunications LLC
	Ionex Communications
	MCImetro Access Transmission Service LLC
	McLeodUSA
	Matrix Telecom, Inc.
	Metropolitan Telecommunications of Nebraska
	Nebraska Technology & Telecommunications

COMMUNITIES	COMPANIES SERVING
OMAHA Cont.	PNG Telecommunications, Inc.
	Orbitcom Inc.
	QuantumShift Communications, Inc.
	TCG Omaha
	Trans National Communications Intl, Inc.
	Windstream of the Midwest Inc.
	XO Communications Services, LLC
ONG	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
ORCHARD	Citizens Telecommunications
	Granite Telecommunications LLC
ORD	Citizens Telecommunications
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
ORLEANS	Citizens Telecommunications
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
OSCEOLA	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
OSHKOSH	United Telephone Company of the West dba CenturyLink
	Granite Telecommunications LLC
OSMOND	Eastern Nebraska Telephone Company
OTOE	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
OVERTON	Arapahoe Telephone Company
OXFORD	Qwest Corporation dba CenturyLink QC
	Granite Telecommunications LLC
	Ionex Communications
	MCImetro Access Transmission Service LLC
	Nebraska Technology & Telecommunications
	Pinpoint Communications
PAGE	Great Plains Communications, Inc.
PALISADE	Great Plains Communications, Inc.
PALMER	Citizens Telecommunications

COMMUNITIES	COMPANIES SERVING
PALMER Cont.	Nebraska Technology & Telecommunications
PALMYRA	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
PANAMA	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
PAPILLION	See Omaha
	Entelegent Solutions, Inc.
PAWNEE CITY	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Time Warner Cable Information Services
PAXTON	Consolidated Telco, Inc.
PENDER	Qwest Corporation dba CenturyLink QC
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Huntel Cablevision
	Nebraska Technology & Telecommunications
PERU	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
PETERSBURG	Great Plains Communications, Inc.
PHILLIPS	Hamilton Telephone Company
PICKRELL	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
PIERCE	Pierce Telephone Company, Inc.
PILGER	Qwest Corporation dba CenturyLink QC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
PLAINVIEW	Plainview Telelphone Company
PLATTE CENTER	Citizens Telecommunications
	Nebraska Technology & Telecommunications
PLATTSMOUTH	Windstream Nebraska, Inc.
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
PLEASANT DALE	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications

COMMUNITIES	COMPANIES SERVING
PLEASANTON	Citizens Telecommunications
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
PLYMOUTH	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
POLK	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
PONCA	Great Plains Communications, Inc.
POTTER	United Telephone Company of the West dba CenturyLink
	Granite Telecommunications LLC
PRAGUE	Northeast Nebraska Telephone Company
PRIMROSE	Great Plains Communications, Inc.
PURDUM	Consolidated Telephone Co.
RAGAN	Great Plains Communications, Inc.
RANDOLPH	Qwest Corporation dba CenturyLink QC
	AT&T
	Granite Telecommunications LLC
	Ionex Communications
	MCImetro Access Transmission Service LLC
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
RAVENNA	Nebraska Central Telephone Company
RAYMOND	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
RED CLOUD/RIVERTON	Great Plains Communications, Inc.
REPUBLICAN CITY	Citizens Telecommunications
	Granite Telecommunications LLC
REYNOLDS	See Chester
RISING CITY	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
RIVERDALE	Citizens Telecommunications
	Nebraska Technology & Telecommunications
RIVERTON	See Red Cloud
ROCKVILLE	Nebraska Central Telephone Company

COMMUNITIES	COMPANIES SERVING
ROSALIE	Eastern Nebraska Telephone Company
ROSELAND	Glenwood Telephone Membership Corp.
RUSHVILLE	Great Plains Communications, Inc.
RUSKIN	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
SARGENT	Nebraska Central Telephone Company
SCHUYLER	Qwest Corporation dba CenturyLink QC
	AT&T
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Ionex Communications
	MCImetro Access Transmission Service LLC
	Metropolitan Telecommunications of Nebraska
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
SCOTIA	Nebraska Central Telephone Company
SCOTTSBLUFF	United Telephone Company of the West dba CenturyLink
	Allo Communications
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
SCRIBNER	Great Plains Communications, Inc.
SENECA	Consolidated Telephone Co.
SEWARD	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Time Warner Cable Information Services
SHELBY	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
SHELTON	Nebraska Central Telephone Company
SHICKLEY	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
SIDNEY	Qwest Corporation dba CenturyLink QC
	Allo Communications

COMMUNITIES	COMPANIES SERVING
SIDNEY Cont.	AT&T
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	dishNET Wireline, LLC
	First Communications, LLC
	Granite Telecommunications LLC
	Ionex Communications
	Metropolitan Telecommunications of Nebraska
	Mobius Communications
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
SILVER CREEK	Qwest Corporation dba CenturyLink QC
	Allo Communications
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
SNYDER	Great Plains Communications, Inc.
SODTOWN	Sodtown Telephone Company
SOUTH SIOUX CITY	Qwest Corporation dba CenturyLink QC
	AT&T
	dishNET Wireline, LLC
	FiberComm LLC
	First Communications, LLC
	Granite Telecommunications LLC
	Ionex Communications
	Long Lines Siouxland
	McLeodUSA
	MCImetro Access Transmission Service LLC
	Metropolitan Telecommunications of Nebraska
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
	Trans National Communications International, Inc.
SPALDING	Great Plains Communications, Inc.
SPENCER	Northeast Nebraska Telephone Company
SPRINGFIELD	Qwest Corporation dba CenturyLink QC
	dishNET Wireline, LLC

COMMUNITIES	COMPANIES SERVING
SPRINGFIELD Cont.	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
SPRINGVIEW	Three River Telco
ST EDWARD	Great Plains Communications, Inc.
ST LIBORY	Qwest Corporation dba CenturyLink QC
	Charter Fiberlink-Nebraska, LLC
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Matrix Telecom, Inc.
	Nebraska Technology & Telecommunications
ST PAUL	Qwest Corporation dba CenturyLink QC
	Allo Communications
	AT&T
	BullsEye Telecom Inc.
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Ionex Communications
	Metropolitan Telecommunications of Nebraska
	Nebraska Technology & Telecommunications
STAMFORD	Citizens Telecommunications
	Granite Telecommunications LLC
STANTON	Stanton Telecom, Inc.
STAPLEHURST	Clarks Telecommunications Co.
STAPLETON	Great Plains Communications, Inc.
	Orbitcom Inc.
STEELE CITY	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
STEINAUER	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
STERLING	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
STOCKHAM	Hamilton Telephone Company
STRATTON	Great Plains Communications, Inc.
STROMSBURG	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications

COMMUNITIES	COMPANIES SERVING
STUART	Northeast Nebraska Telephone Company
SUMNER	Citizens Telecommunications
SUPERIOR	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
SURPRISE	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
SUTHERLAND	Great Plains Communications, Inc.
SUTTON	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
SWANTON	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
SYRACUSE	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
TABLE ROCK	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
	Time Warner Cable Information Services
TALMAGE	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
TAMORA	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
TAYLOR	Nebraska Central Telephone Company
TECUMSEH	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Time Warner Cable Information Services
TEKAMAH	Qwest Corporation dba CenturyLink QC
	AT&T
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Huntel Cablevision
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
THEDFORD	Consolidated Telephone Co.

COMMUNITIES	COMPANIES SERVING
THEDFORD Cont.	Orbitcom Inc.
TILDEN	Citizens Telecommunications
	Nebraska Technology & Telecommunications
TOBIAS	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
TRENTON	Great Plains Communications, Inc.
TRI CITY	Southeast Nebraska Telephone Company
TRUMBULL	Hamilton Telephone Company
TRYON	Great Plains Communications, Inc.
UEHLING	Hooper Telephone Company
ULYSSES	Clarks Telecommunications Co.
UNADILLA	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
UNION	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
UPLAND	Glenwood Telephone Membership Corp.
UTICA	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
VALENTINE	Qwest Corporation dba CenturyLink QC
	Allo Communications
	AT&T
	BullsEye Telecom Inc.
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Ionex Communications
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
VALLEY	Qwest Corporation dba CenturyLink QC
	dishNET Wireline, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
VALPARAISO	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
VENANGO	Great Plains Communications, Inc.
VERDEL	Three River Telco

COMMUNITIES	COMPANIES SERVING
VERDIGRE	Great Plains Communications, Inc.
VIRGINIA	Diller Telephone Company, Inc.
WACO	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
WAHOO	Windstream Nebraska, Inc.
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
WAKEFIELD	Qwest Corporation dba CenturyLink QC
	Granite Telecommunications LLC
	Huntel Cablevision
	Metropolitan Telecommunications of Nebraska
	Nebraska Technology & Telecommunications
WALLACE	Consolidated Telco, Inc.
WALNUT	Great Plains Communications, Inc.
WALTHILL	Eastern Nebraska Telephone Company
WATERLOO	See Elkhorn
WATERBURY	Northeast Nebraska Telephone Company
WAUNETA	Wauneta Telephone Company
WAUSA	Great Plains Communications, Inc.
WAVERLY	Windstream Nebraska, Inc.
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
WAYNE	Qwest Corporation dba CenturyLink QC
	AT&T
	BullsEye Telecom Inc.
	dishNET Wireline, LLC
	First Communications, LLC
	Granite Telecommunications LLC
	Huntel Cablevision
	Ionex Communications
	MCImetro Access Transmission Service LLC
	Matrix Telecom, Inc.
	Nebraska Technology & Telecommunications
	Orbitcom Inc.

COMMUNITIES	COMPANIES SERVING
WEEPING WATER	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
WELLFLEET	Consolidated Telco, Inc.
WEST POINT	Qwest Corporation dba CenturyLink QC
	AT&T
	BullsEye Telecom Inc.
	dishNET Wireline, LLC
	First Communications, LLC
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
WESTERN	Windstream Nebraska, Inc.
	Nebraska Technology & Telecommunications
WESTON	Northeast Nebraska Telephone Company
WHITMAN	Consolidated Telephone Co.
WHITNEY	See Crawford
WILBER	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
WILCOX	Great Plains Communications, Inc.
WILSONVILLE	Citizens Telecommunications
	Pinpoint Communications
WINNEBAGO	Eastern Nebraska Telephone Company
WINNETOON	Great Plains Communications, Inc.
WINSIDE	Northeast Nebraska Telephone Company

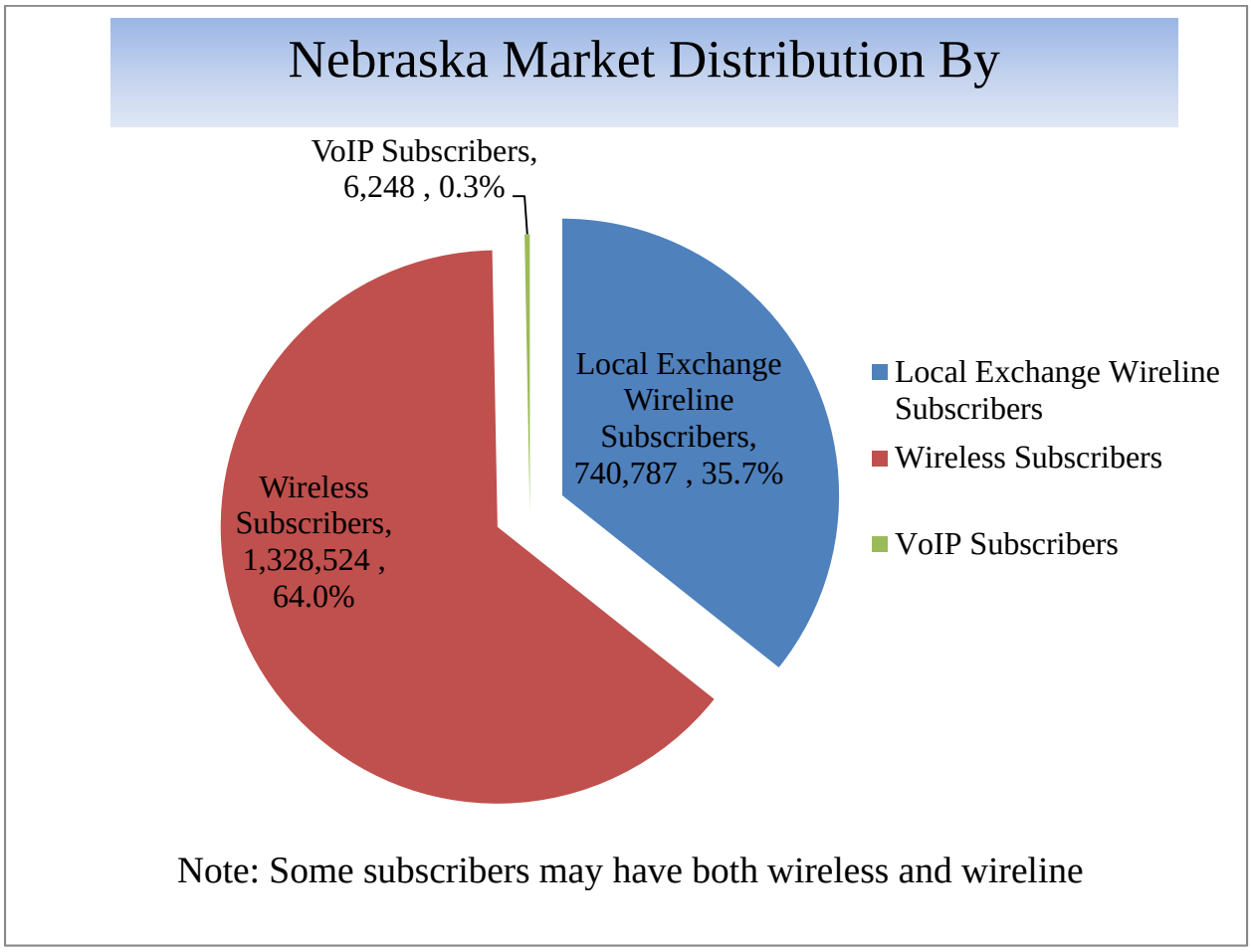
COMMUNITIES	COMPANIES SERVING
WISNER	Great Plains Communications, Inc.
WOLBACH	Great Plains Communications, Inc.
WOOD LAKE	Great Plains Communications, Inc.
WOOD RIVER	Qwest Corporation dba CenturyLink QC
	Allo Communications
	Charter Fiberlink-Nebraska, LLC
	Granite Telecommunications LLC
	Matrix Telecom, Inc.
	Nebraska Technology & Telecommunications
	Orbitcom Inc.
WYMORE/BLUE SPRINGS	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
WYNOT	Great Plains Communications, Inc.
YORK	Windstream Nebraska, Inc.
	AT&T
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications
	Time Warner Cable Information Services
YUTAN	Windstream Nebraska, Inc.
	Granite Telecommunications LLC
	Nebraska Technology & Telecommunications

2013 Local Rate Changes

Cox Nebraska Telcom, Inc. had both a business and residential local rate change in 2013.

Nebraska Market Distribution by Technology

Nebraska, as with the entire nation, continues to see significant changes in the number of consumers that opt to "cut the cord" or relinquish their landline telephone and exclusively use a wireless product or other internet product like VoIP. According to recent studies, approximately 1/3 of customers have cut the cord and use exclusively a wireless telephone. The table below shows the numbers of subscribers in Nebraska of each type of technology as of December 31, 2012. Some consumers may utilize more than one technology and be included in both categories.



Note: Some subscribers may have both wireless and wireline

Explanation of Charges on Telephone Bills

Basic Residential Service - The monthly rate charged by companies to provide telecommunications service to a private residence, including single and multifamily dwellings, within the local calling area.

Extended Area Service - A monthly flat fee charged by telecommunications companies that allows users to place and receive an unlimited number of calls from nearby communities with no additional charges.

Number Portability Charge - A charge set by the FCC to allow telephone companies to recover costs associated with allowing customers to retain their telephone number when changing from one telephone company to another.

Federal Subscriber Line Charge - A charge set by the FCC that customers pay to their local phone company to cover part of the cost of connecting customers to the telephone network. It is currently capped at $6.50 per month for the first residential line and single business lines. The monthly charge varies by company.

Telecommunications Relay Service (TRS) Surcharge - A charge set by the Commission to fund the operation of the statewide TRS system for deaf, hard-of-hearing, and speech impaired citizens. The TRS Surcharge also provides financial aid to eligible Nebraskans for the purchase of specialized telephone equipment necessary to use TRS. The TRS Surcharge is reviewed annually by the Commission and is currently $.03 per month per telephone number or functional equivalent.

911 Service Surcharge - A charge assessed by and remitted to a city or county to fund the operation of public safety answering points (PSAP) that receive 911 emergency calls. This charge ranges from $.50 to $1.00 per month per telephone number.

Wireless E911 Surcharge - A charge assessed by the Commission to fund the implementation and operation of the Wireless Enhanced 911 program which allows emergency responders to accurately locate wireless devices that have placed 911 calls. Currently the charge is $.45 per month on each telephone number in service.

Nebraska Universal Service Fund (NUSF) Surcharge - All telecommunications service providers must contribute to NUSF based on a percentage of their in-state revenues. Telephone providers then recover the cost from their customers in the form of a surcharge collected from each customer. The NUSF surcharge is currently 6.95% of intrastate revenues of a company. For more information on the programs funded by NUSF see Part III of this report.

Federal Tax (Excise Tax) - A 3% federal tax which funds general federal government operations.

State Sales Tax - A tax assessed by the state on local and in-state long distance telecommunications charges that funds general state government obligations. The current tax rate is 5.5%.

City Sales Tax - A tax assessed by a city to fund general municipal obligations. Not every city assesses a city sales tax and they vary by city.

City Occupation or Franchise Tax - A tax assessed on telephone companies by a city for the right to do business in the community. Telephone companies are allowed to recover the amount paid in occupation or franchise taxes directly on customer bills. Not every city imposes occupation or franchise taxes and they vary by city.

Federal Universal Service - All telecommunications service providers must contribute to the Federal Universal Service Fund based on a percentage of their interstate end-user revenues. The fund supports the following four programs: Lifeline/Linkup, High-cost, Schools and Libraries and Rural Health Care. The rate is recalculated by the FCC quarterly, and is usually passed on to consumers and varies by company.

Long Distance Telephone Carriers

The number of long distance companies certificated to operate in the State of Nebraska continues to grow. Currently, there are 228 companies authorized to provide long distance services in Nebraska. The following table is a listing of all the long distance carriers certificated to provide service in Nebraska. Inclusion on the table below does not indicate the company is offering service in Nebraska at this time.

Long Distance Telephone Carriers		
1 800 Collect, Inc.	FiberComm, L.C.	Orbitcom, Inc.
365 Wireless, LLC	First Communications, LLC	Paetec Communications, Inc.
800 Response Information Services, LLC	France Telecom Corporate Solutions, LLC	Pay Tel Communications, Inc.
Access One, Inc.	Frontier Communications Of America, Inc.	Peetz Cooperative Telephone Company
Access Point, Inc.	Glenwood Telecommunications, Inc.	Pinpoint Communications, Inc.
Access2go, Inc.	Global Connection Inc. Of America	PNG Telecommunications, Inc.
Accessline Communications Corporation	Global Crossing Telecommunications, Inc.	Primus Telecommunications, Inc.
ACN Communication Services, Inc.	Global Tel*Link Corporation	Protel Advantage, Inc.
Action Communications, Inc.	Go Solo Technologies, Inc.	Protocall LLC
Advantage Telecommunications Corp.	Gold Line Telemanagement Inc.	Public Communications Services, Inc.
Aero Communications, LLC	Granite Telecommunications, LLC	Quantumshift Communications, Inc.
Affinity Network, Inc.	Grasshopper Group, LLC	Qwest LD Corp.
Airespring, Inc.	Great Plains Communications Long Distance, Inc.	Reduced Rate Long Distance, LLC
Alec, LLC	Hamilton Long Distance Company	Reliant Communications, Inc.
Alliance Global Networks, LLC	Hartington Telecommunications Company, Inc.	SBC Long Distance, LLC
Alliance Group Services, Inc.	Henderson Cooperative Telephone Company	Securus Technologies, Inc.
Allo Communications, LLC	HTC Communications, LLC	Silv Communication, Inc.
American Telecommunications Systems, Inc.	Huntel Cablevision, Inc.	Southeast Nebraska Communications, Inc.
Americatel Corporation	Hypercube Telecom, LLC	Southwest Communications, Inc.
Amerivision Communications, Inc.	Ibasis Retail, Inc.	Spectrotel, Inc.
ANPI, LLC	IBFA Acquisition Company, LLC	Sprint Communications Company L.P.
Arapahoe Telephone Company	IDT America, Corp.	Stanton Long Distance, LLC
Arizona Telephony Brokers, LLC	inContact, Inc.	STI Prepaid, LLC
Association Administrators, Inc.	Inetworks Group, Inc.	Stratus Networks, Inc.
AT&T Corp.	Inmate Calling Solutions, LLC	TDS Long Distance Corporation
Bandwidth.Com CLEC, Inc.	Intelepeer, Inc.	Telecom Management, Inc.
BCE Nexxia Corporation	Intellicall Operator Services, Inc.	Telecom North America Inc.
BCN Telecom, Inc.	International Telcom, Ltd.	Teleconnect Long Distance Services & Systems Company
Bellsouth Long Distance, Inc.	Intrado Communications, Inc.	Teledias Communications, Inc.
Benkelman Telephone Company	Ionex Communications North, Inc.	Telemanagement Systems, Inc.
Betterworld Telecom, LLC	Iowa Network Services, Inc.	Telenational Communications, Inc.
Big River Telephone Company, LLC	KDDI America, Inc.	Teleport Communications of America, LLC
Broadview Networks, Inc.	Kentucky Data Link, Inc.	Teleuno, Inc.
Broadvox-Clec, LLC	Keyart Comm., Inc.	Telrite Corporation
Broadwing Communications, LLC	Lattice Incorporated	Three River Telco
BT Communications Sales, LLC	LCR Telecommunications, LLC	Time Warner Cable Information Services (Nebraska), LLC
BullsEye Telecom, Inc.	Legacy Long Distance International, Inc.	Total Holdings, Inc.
Business Telecom, Inc. (BTI)	Level 3 Communications, LLC	TNCI Operating Company, LLC
Cable USA III, LLC	Lightyear Network Solutions, LLC	Treasure Lake, L.P.
Cause Based Commerce, Inc.	Mainstay Technologies, LLC	Tri-M Communications, Inc.
CenCom, Inc.	Masergy Communications, Inc.	TTI National, Inc.
CenturyLink QC	Matrix Telecom, Inc.	U.S. South Communications, Inc.
CenturyLink QCC	McGraw Communications, Inc.	U.S. Telecom Long Distance, Inc.
CenturyTel Fiber Company II, LLC	MCI Communications Services, Inc.	Unite Private Networks, LLC
Charter Fiberlink-Nebraska, LLC	McLeodUSA Telecommunications Services, LLC	United Telecom Inc.
Cincinnati Bell Any Distance, Inc.	Metropolitan Telecommunications Of Nebraska, Inc.	USA Digital Communications, Inc.
Citistream Communications, Inc.	Mitel Netsolutions, Inc.	Value-Added Communications , Inc.
Clear World Communications Corporation	Mobilitie, LLC	Velocity The Greatest Phone Company Ever, Inc.
Coast International, Inc.	Mobius Communications Company	Verizon Enterprise Solutions LLC
Comcast Phone Of Nebraska, LLC	Momentum Telecom, Inc.	Verizon Long Distance LLC
Common Point, LLC	National Directory Assistance, LLC	Verizon Select Services, Inc.
Community Internet Systems, Inc.	Nebraska Central Telecom, Inc.	.Victory Telecom, Inc.
Comtech 21, LLC	Nebraskalink Holdings, LLC	Voicecom Telecommunications, LLC
Consolidated Long Distance, Inc.	Nebraska Long Distance Company, LLC	Wholesale Carrier Services, Inc.
Consumer Telcom, Inc.	Nebraska Technology & Telecommunications, Inc.	Williams Communications, LLC

Long Distance Telephone Carriers		
Convergia, Inc.	Nebraskalink, LLC	Wimactel, Inc.
Covista, Inc.	NECC Telecom, Inc.	Windstream Communications, Inc.
Cox Nebraska Telcom, LLC	Net One International, Inc.	Windstream IT-Comm, LLC
Cozad Telephone Company	Network Billing Systems, LLC	Windstream KDL, Inc.
Crexendo Business Solutions Inc.	Network Communications International Corporation	Windstream Norlight, Inc.
CTI Long Distance, Inc.	Network Operator Services, Inc.	Windstream NTI, Inc.
Custom Teleconnect, Inc.	NetworkIP, LLC	Windstream Systems Of The Midwest, Inc.
Dalton Telecommunications, Inc.	Neutral Tandem-Nebraska, LLC	Working Assets Funding Service, Inc.
DCT Telecom Group, Inc.	New Horizons Communications Corp.	X2comm, Inc.
Deltacom, Inc.	Newcastle Holdings, Inc.	XO Communications, LLC
Diode Telecom, Inc.	Nextlink Wireless, LLC	Yestel USA, Inc.
Discount Long Distance, LLC	Nobeltel, LLC	Zayo Group, LLC
dishNET Wireline L.L.C	Norlight Telecommunications, Inc.	Zito Midwest, LLC
Earthlink Business, LLC	Norstan Network Services, Inc.	
Easton Telecom Service, LLC	NOS Communications, Inc.	
Electric Lightwave, LLC	Nosva Limited Partnership	
Embarq Communications, Inc.	Nyecom Teleservices, Inc.	
Encartele, Inc.	Onelink Communications, Inc.	
Enhanced Communications Group, LLC	Onestar Long Distance, Inc.	
Enhanced Communications Network, Inc.	Onvoy, Inc.	
Entelegent Solutions, Inc.	Opcom, Inc.	
Entrix Telecom, Inc.	Operator Service Company, LLC	
Ernest Communications, Inc.	Opex Communications, Inc.	

Service Testing & Outage Reports

The Commission ensures Nebraskans are receiving quality telecommunications service by periodically reviewing performance data provided by telephone companies and by monitoring consumer complaints for indications of potential problems requiring further investigation. All local exchange carriers are using digital switches designed to perform a series of self-diagnostic tests, which makes the monitoring and identification of service quality issues much easier. The Commission's technical staff offers assistance in identifying the source of service problems and is available to assist in resolving service complaints from consumers across the state.

The current service quality standards in the Commission's Telecommunications Rules and Regulations were developed for traditional copper based switched circuit technology. The Commission staff is conducting the final review of the existing service quality rules and will propose changes intended to update the rules consistent with current technologies.

Reports are required to be filed with the Commission by local exchange carriers when service outages are experienced. The report must include the date and time of the outage, the geographic area affected, the cause of the outage, if known, and an estimate of the number of access lines affected. Within five days of resolving the trouble, a final report must be filed with the Commission showing the total number of trouble reports received from customers related to the outage and the corrective action taken.

In the 2012-13 Fiscal Year there were a total of 112 outages reported to the Commission. The causes of the outages were: 47 cable cuts, 35 telephone equipment malfunctions, 11 weather related, 15 accidental, 1 maintenance and 3 unknown.

Applications and Tariffs

The Commission received a total of 121 applications during the period of July 1, 2012, to June 30, 2013. Much of the activity involved companies requesting amendments to their certificates and companies relinquishing their certificates to operate. Below is a summary of the applications received during this period:

Type of Application	Number of Applications Filed	Type of Application	Number of Applications Filed
Local Certification	4	Eligible Telecommunications Carrier Designation	6
Reseller Certification	3	Withdrawal	3
Amend Certification	47	Transfer of Control	11
Boundary/Customer	8	Name Change	9
Access Tariffs	5	Trade Name	1
Loan/Indebtedness	5	Rate Increase	2
Commission-Initiated	3	Other	7
Interconnection	10		

There were 335 tariff changes filed with the Commission during this period. Individual applications may be reviewed in our offices while the tariff revision listing is available on the Commission's website.

Complaints

During the previous year, the Commission addressed numerous issues involving consumer choice, service quality, safety, distance learning, universal service, and emerging technologies such as VoIP (Voice over Internet Protocol). The list below includes some of the major issues addressed by the Commission in the last fiscal year:

Local Exchange Carriers

The following table shows the LEC complaints by company. The largest number of complaints involved the two largest LECs, Windstream and CenturyLink.

LEC Complaints By Company

LECs	2011-2012			2012-2013		
	Complaints	**Access Lines**	**% of Total Lines**	**Complaints**	**Access Lines**	**% of Total Lines**
Windstream	56	171,960	22.5	58	166,833	22.5
CenturyLink fka Qwest	53	159,826	20.9	59	144,991	19.6
NT&T	16	17,396	2.3	14	15,674	2.1
Cox	16	161,695	21.1	15	156,053	21.1
Frontier	12	31,882	4.2	7	31,465	4.2
Great Plains	4	23,977	3.1	5	22,642	3.1
CenturyLink (fka Embarq)	3	12,853	1.7	2	11,553	1.6
AT&T	2	39,291	5.1	1	41,434	5.5
MCI	0	657	0.1	0	546	0.1
Time Warner	10	28,735	3.8	19	33,289	4.5
Consolidated	0	2,471	0.3	0	2,424	0.3
Others	26	114,386	14.9	19	113,883	15.4
TOTAL	**198**	**765,129**	**100.0**	**199**	**740,787**	**100.0**

Long Distance Carriers

The following table shows the number of complaints filed against long distance companies. The largest number of complaints involved telemarketing by a local company in Omaha telemarketing customers all over the country. Customers can verify they have the long distance carrier of their choice by dialing the toll-free telephone number (700) 555-4141.

Long Distance Complaints By Carrier

IXCs	2010-2011		2011-2012		2012-2013	
	Complaints	**%**	**Complaints**	**%**	**Complaints**	**%**
AT&T	7	4.7	4	6.6	4	8.7%
Advantage Telecom	n/a		n/a		9	19.6%
Consumer Telcom	26	17.4	2	3.2	1	2.2%
Correctional Billing	1	0.6	0	0.0	0	0.0%
ESBI	0	0.0	1	1.6	0	0.0%
Excel	1	0.6	0	0.0	0	0.0%
ILD Teleservices	5	3.4	3	4.9	1	2.2%
MCI	8	5.4	7	11.5	3	6.5%
Qwest	4	2.6	2	3.2	1	2.2%
Reliant Communication	3	2.0	14	23.0	3	6.5%
Sprint	1	0.6	4	6.6	1	2.2%
United Telecom	4	2.6	0	0.0	0	0.0%
VarTec	2	1.3	0	0.0	0	0.0%
Windstream	5	3.4	4	6.6	6	13.0%
Zero Plus Dialing, Inc.	8	5.4	0	0.0	3	6.5%
Miscellaneous	74	50.0	20	32.8	14	30.4%
TOTAL	**149**	**100.0**	**61**	**100.0**	**46**	**100.0**

Wireless Carriers

While the Commission lacks statutory authority over wireless telecommunications service and billing, we continue to receive and process wireless complaints. The Commission strives, utilizing existing resources, to resolve these complaints to benefit the wireless consumers of Nebraska.

Wireless Complaints By Carrier

Wireless Carriers	2010-2011		2011-2012		2012-2013	
	Complaints	**%**	**Complaints**	**%**	**Complaints**	**%**
Alltel Wireless	9	3.1	1	0.6	0	0.0%
AT&T	24	8.3	13	7.9	7	4.8%
Cricket	17	5.9	9	5.5	7	4.8%
Qwest	0	0.0	1	0.6	0	0.0%
Sprint	19	6.6	23	14.0	22	15.0%
T-Mobile	3	1.1	6	3.7	3	2.0%
TracFone Wireless	7	2.4	1	0.6	7	4.8%
US Cellular	4	1.4	2	1.2	4	2.7%
Verizon Wireless	195	67.7	92	56.1	78	53.1%
Viaero Wireless	5	1.7	10	6.1	8	5.4%
Virgin Mobile	2	0.7	0	0.0	6	4.1%
Others	3	1.1	6	3.7	5	3.3%
TOTAL	**288**	**100**	**164**	**100**	**147**	**100**

Formal Complaints

FC-1332 *In the Matter of the Formal Complaint of Orbitcom, Inc., Sioux Falls, South Dakota, seeking a determination that AT&T Communications of the Midwest, Inc., Denver, Colorado, failed to pay intrastate access charges billed by Orbitcom in accordance with Orbitcom's intrastate switched access tariff.*

FC-1335 *In the Matter of the Formal Complaint of AT&T Communications of the Midwest, Inc., Denver, Colorado, seeking a determination that OrbitCom, Inc., Sioux Falls, South Dakota, failed to negotiate Intrastate Access Charges and that OrbitCom's tariffed Intrastate Switched Access Rates are unfair and unreasonable.*

On February 27, 2009, a Formal Complaint was filed with the Commission by OrbitCom, Inc. (OrbitCom), seeking a determination that AT&T Communications of the Midwest, Inc. (AT&T), failed to pay for intrastate access services provided by OrbitCom and billed to AT&T

in accordance with OrbitCom's Nebraska Switched Access Services Tariff. The Formal Complaint was docketed by the Commission as Docket FC-1332.

On April 30, 2009, AT&T filed a Formal Complaint against OrbitCom with the Commission, which was docketed as Docket FC-1335, alleging OrbitCom's intrastate access rates contained in its Nebraska tariff were not negotiated and are not fair and reasonable pursuant to Nebraska law. AT&T further requested a Commission review of OrbitCom's intrastate access rates. On May 1, 2009, AT&T filed a Motion to Consolidate the Formal Complaint proceedings pursuant to the Commission's Rules of Procedure. The Commission granted the Motion to Consolidate in an order issued on May 12, 2009.

A hearing was held on September 16, 2009. The Commission issued an order on November 10, 2009, dismissing AT&T's complaint and request for a review of OrbitCom's intrastate access rates and sustaining OrbitCom's complaint, finding OrbitCom had a valid and effective Switched Access Services tariff in Nebraska and had been billing AT&T for access services pursuant to its Nebraska tariff and AT&T should pay the outstanding balance due OrbitCom for such services rendered from April 2008.

On December 10, 2009, AT&T filed an appeal of the Commission's order in District Court. The Commission's order was stayed by the court pending the outcome of the appeal. On February 24, 2011, the District Court entered an order reversing the Commission's order and remanding the complaint back to the Commission for the Commission to conduct a review of OrbitCom's access rates pursuant to *Neb. Rev. Stat.* § 86-140. On March 25, 2011, OrbitCom filed an appeal of the District Court's decisions with the Nebraska Court of Appeals. Subsequently, on May 25, 2011, OrbitCom filed a motion to withdraw its appeal with the Court of Appeals. The Court of Appeals granted OrbitCom's motion and dismissed the appeal on June 13, 2011.

Therefore, pursuant to the District Court's February 24, 2011 order, the above-captioned matter was remanded to the Commission for further proceedings. A hearing on remand was held on December 20, 2011. The Commission issued an order on February 28, 2012, finding OrbitCom's access rate fair and reasonable pursuant to its review under § 86-140, and ordering AT&T to pay the outstanding balance owed OrbitCom for access services. AT&T appealed the Commission's Order on remand to the District Court on March 28, 2012. In June 2013, AT&T and OrbitCom notified the Commission that the national companies had reached tentative agreement on a global settlement that would settle all outstanding disputes between the companies, including the dispute in Nebraska. The parties are working to finalize the agreement; however, the appeal remains in pending status in the District Court.

FC-1360 *In the Matter of the Formal Complaint of Carquest of McCook, McCook, v. CenturyLink, Minneapolis, Minnesota, alleging inadequate service and unfair billing practices.*

A formal complaint was filed by Carquest of McCook, Nebraska, against CenturyLink for inadequate service and unfair billing practices. An answer was timely filed by CenturyLink

on June 18, 2013. CenturyLink requested time to discuss settlement with the complainant. A hearing date will be set if negotiations are unsuccessful.

Relay Service Complaints

There were no consumer complaints related to traditional relay calls (excluding CapTel) for the fiscal year ending June 30, 2012. There were five for the fiscal year ending June 30, 2011. The Commission tracks complaints using the following categories: Service, Billing, Technical and External. Generally service complaints relate to the quality of Communication Assistant ("CA") interaction with the customer. Billing issues involve primarily long distance errors, Technical complaints generally center on line disconnections, line garbling, 711-related problems and long connect times.

The CapTel center in Madison, Wisconsin, also tracks complaints/inquires for captioned telephone service. The Madison Center logged 93 customer contacts with 55 categorized as technical and 38 inquiries for the fiscal year ended June 30, 2012. Since the CA in a captioned telephone setting is transparent to both parties, there are few service-related issues regarding the CA. Technical complaints consisted primarily of set up problems with equipment. Inquiries consist mainly of educating the customer regarding equipment use, requests for information, and referrals where the customer is directed to state distribution programs for equipment assistance.

Historical Complaint Statistics

The following table shows the total number of complaints filed this year and divides the complaints between local exchange carriers (LECs), interexchange carriers (IXCs), also known as long distance companies, and wireless carriers. The miscellaneous category includes Internet, cable TV, VoIP and pay phone complaints.

2012 – 2013 Complaint Type By Carrier Type

2012-2013 Types	LECs	IXCs	Wireless	Miscellaneous
Billing	59	31	85	7
Service	121	12	59	42
Telemarketing	3	2	1	0
Customer Service	5	0	2	1
Slamming	0	1	0	0
Directory	10	0	0	0
Area Code	0	0	0	0
Carrier to Carrier	1	0	0	0
TOTAL	**199**	**46**	**147**	**50**

Historical By Carrier Type

	2011-2012		2012-2013	
LECs	198	43.6%	199	45.0%
IXCs	61	13.5%	46	10.4%
Wireless	164	36.1%	147	33.3%
Miscellaneous	31	6.8%	50	11.3%
TOTAL	**454**	**100%**	**442**	**100%**

Historical By Complaint Type

Types by Year	2011-2012	2012-2013
Billing	214	182
Service	208	234
Auto Dialer	0	0
Telemarketing	12	6
Customer Service	5	8
Slamming	3	1
Directory	11	10
Carrier to Carrier	0	1
Area Code	1	0
TOTAL	**454**	**442**

Of the 442 complaints received during Fiscal Year 2012-13, 120 resulted in savings to the customer totaling $38,084.08. This represents an average savings of approximately $317 per customer.

PART VII

Recommendations for the 2014 Legislative Session

Recommendations for 2014 Legislative Session

Pursuant to LB 595, the Commission retained an independent 3rd party consultant to conduct a study regarding Next Generation 911 services in Nebraska and may make further recommendations as necessary for the 2014 session. In addition, the Commission continues to monitor changes in federal law that may have an impact on the state regulatory environment which may result in further legislative recommendations.

State USF White Paper:
New Rural Investment Challenges

By Michael J. Balhoff and Bradley P. Williams
Balhoff & Williams, LLC
June 2013

Customers in rural high-cost areas rely on broadband networks for economic opportunity, education, health care, public safety, emergency management, and other social benefits.

Without sufficient policy-based investment support, the future is clear. Telecommunications companies will have no choice except to focus on economic clusters of population and withdraw from offering broadband and voice services to high-cost customers. Where broadband does not exist at present and will not be supported sufficiently, all terrestrial universal service—for voice and broadband—will cease. Universal Service, as legislated in the Telecom Act, appears to be at risk.

Federal and state regulators and legislators stand on the threshold of a new era as they survey their direct and complicated responsibility for the welfare of citizens who live in a vast expanse—most of the land mass—of this country.

Michael J. Balhoff and Bradley P. Williams

Reviews of *State USF White Paper: New Rural Investment Challenges*

Policymakers and civic leaders

"This White Paper provides a well-researched discussion of the various adverse consequences — especially for the smaller rural wireline incumbent local exchange carriers (rural ILECs) — that were predicted in advance by State regulators, including the State Members of the Federal-State Joint Board on Universal Service, consumer advocates, and various other entities, while the Federal Communications Commission (FCC) was engaged in the formulation of its November 18, 2011 Transformation Order for the federal universal service fund (USF) and intercarrier compensation (ICC). The White Paper underlines the importance of State USF mechanisms for supporting the redefined concept of universal service for all Americans that now includes retail broadband access services, and for meaningfully sustaining the carrier of last resort (COLR) obligations of wireline ILECs in general and rural ILECs in particular. Both the redefined concept of universal service and these COLR obligations need to function in an environment of financial uncertainty that may not be resolved any time soon because of the appellate litigation associated with the FCC's Transformation Order and its implementation."
(DISCLAIMER: The above opinions are those of Commissioner J.H. Cawley only. They do not represent the views of the Pa. PUC or of other State Members of the Federal-State Joint Board on Universal Service.)
Commissioner James H. Cawley
Pennsylvania Public Utility Commission (Pa. PUC)
State Chair and Member of the Federal-State Joint Board on Universal Service

"For the last decade and more, as public policy regarding intercarrier compensation and universal service has lurched in first one direction then another, Michael Balhoff and his colleagues have provided principled, objective, factually-grounded and detailed analyses of various attempts to solve this Gordian knot, which too often have devolved into efforts to choose winners and losers. Mr. Balhoff's recent analysis of the FCC's ICC/USF Transformation Order, "Lessons from Rebuilding the FCC's Quantile Regression Analysis," stripped bare the glaring deficiencies of the FCC's QRA model which has created significant uncertainty and controversy for the viability of rural service in the wake of the Transformation Order. Balhoff & Williams' new study on State USF raises important questions about the customer impact of the Transformation Order which has now been revisited by the FCC in an astonishing six separate Orders on Reconsideration. In addition to being a classic case of prescriptive industrial policy, the Order reflects the FCC's pre-emption of both state authority and congressional intent through unilateral nullification of Sec 254(b)(3) among other statutory provisions of the Telecommunications Act of 1996, and blithely walks away from the FCC's mandated obligation to rural America. The Order further creates a Hobson's Choice for the states, between assuming what amounts to a multi-billion dollar unfunded state liability or watching the inevitable failure of many rural providers, as detailed in Balhoff &Williams' latest work, which is must reading for all stewards of public policy."
Commissioner Larry S. Landis
Co-Chair of Washington Action Committee, National Association of Regulatory Utility Commissioners
State Chair, Federal-State Joint Conference on Advanced Services [706 Joint Conference]
Former Member, Federal-State Joint Board on Universal Service
Member, Federal-State Joint Board on Jurisdictional Separations
Commissioner, Indiana Utility Regulatory Commission

Financial Community

"Mike Balhoff and Brad Williams consistently provide some of the best policy and financial analysis in the business. This white paper should be required reading as it carefully outlines the financial implications of telecom law and policy. With a full understanding that regulators and policy makers have a job to do, Mike and Brad outline here the many potential intended consequences that can and do often work against public policy goals. This white paper can help industry policy makers navigate these potential pitfalls and ultimately arrive at a better outcome for all."
Frank Louthan
Managing Director - Equity Research
Raymond James

"The white paper from Balhoff & Williams, LLC combines a thorough understanding of the regulatory framework with a Wall Street grasp of the economics behind these issues. In the process, it raises practical questions regarding the long-term effects recent changes in policy will have on investment in fixed infrastructure and service availability in rural markets."
John Hodulik, CFA
Managing Director, Telecommunications, Cable and Satellite Analyst
UBS Investment Research

"The Balhoff & Williams State USF White Paper highlights issues that are important to the rural wireline industry and to those that have a significant investment in that market. CoBank's current assessment of the rural wireline market is cautious to negative. Many small rural wireline providers/companies have or will lose 50 to 100 percent of their capacity to access borrowed capital (when compared to previous periods), regardless of purpose, based on current and pending changes to support mechanisms."
Robert F. West, Senior Vice President
CoBank, ACB, Communications Banking Group
Denver, Colorado

Corporate Executives

"This paper by Balhoff & Williams raises the question of whether telephone customers will continue to be served in the highest-cost regions of our country. Competitive and regulatory changes place tremendous pressure on the financial ability of incumbent providers to continue to serve these areas. Recent changes by the FCC will remove all existing federal universal support for the rural areas served by most carriers, leaving it to the states to determine whether certain rural customers will continue to have access to voice, much less broadband, services. Opponents of state universal service funding, who don't want to contribute to this support and won't provide it themselves, attempt to derail state funding initiatives with misleading sound bites. This paper carefully describes the realities of the current environment and is must reading for state legislators in virtually every state of the Nation."
Paul Sunu
Chief Executive Officer, FairPoint Communications
Charlotte, NC

"Reading this document and evaluating how the recent federal reforms to Universal Service and Intercarrier Compensation will impact customers and economies in the highest-cost, most difficult-to-serve regions of our country is an important consideration for policymakers to understand and consider. Rural carriers will have

difficult choices to make on behalf of their unserved customers if funding proves insufficient to support rural customers' broadband needs, as Mike Balhoff and Brad Williams accurately outline in this paper."
David Wittwer
Chief Executive Officer, TDS Telecom
Madison, WI

Other commenters

"Mike Balhoff and Brad Williams have proven once again that they are thought leaders in an industry facing dynamic changes and significant challenges. Their state USF white paper takes a detailed look at historical state and federal roles with respect to universal service, and against that backdrop, provides constructive recommendations about how states should evaluate options to ensure consumer protection and fulfill the public-interest mission of universal service moving forward. I encourage policymakers at the federal and state level to think even more closely about these important questions, and lead vigorous debate about how best to promote and sustain a shared objective of universal service in a broadband-capable, IP-enabled world."
Shirley Bloomfield
Chief Executive Officer
NTCA–The Rural Broadband Association

"The Balhoff & Williams White Paper provides a clear and well-argued discussion of the impact of changes to the Federal USF program on the states and the carriers providing service in rural locations. The study should prove useful to regulators and legislators evaluating current state USF programs and determining whether to implement new ones."
Sherry Lichtenberg, Ph.D.
Principal for Telecommunications, National Regulatory Research Institute
Silver Spring, MD

"As usual, Balhoff & Williams have prepared a provocative discussion of issues that must be considered by state authorities, especially since they have been overlooked or disregarded by federal regulators. The quibbles I have with parts of the White Paper - and the more substantial disagreements with other parts - do not diminish this Paper's importance."
David C. Bergmann
Telecom Policy Consulting for Consumers
Columbus, Ohio

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Executive summary

- **State *and* federal obligation.** The Telecommunications Act of 1996 (Telecom Act) is clear that the obligation to achieve universal telecommunications service is shared, requiring both federal *and* state support for service to customers in uneconomic-to-serve areas.[1] The recent federal reforms effectively have shifted the full responsibility to fulfill universal service policy in many areas to the states.
- **States should understand and assess the impact from the elimination of intercarrier compensation and re-purposed Universal Service Fund (USF).** State legislators and commissioners should assess the costs, benefits, risks and alternative mechanisms of providing universal telecommunications service in their states. Notably, *where broadband does not exist at present and will not be supported sufficiently, all terrestrial universal service funding—for voice and broadband—will cease.* This means that carriers will have less—and possibly significantly less—ability to

Emerging Problems for Rural Customers

- ***The state's policy challenge.*** *States must begin immediately to analyze policy, costs, and their willingness to supplement federal support that will be offered within the next six to nine months. Regulators and legislators stand on the threshold of a new era as they survey their direct and complicated responsibility for the lives and welfare of citizens who live in a vast expanse—most of the land mass—of this country. State policymakers will have to choose whether and how to support customers' communications needs in many high-cost, rural regions in the wake of sharp reductions in universal service and intercarrier compensation support for those areas.*
- ***Deep cash flow reductions.*** *USF/ICC support benefiting rural customers served by larger price-cap carriers could be reduced by an estimated 85%-90% in many areas from 2012 to 2020 and, for smaller carriers, by approximately 35%; cash flow percentage losses will be well higher. The analysis excludes CAF II funding due to the uncertainties surrounding the costly new obligations and the potential that a significant percentage of the funding, if insufficient, will be declined by carriers. The cumulative effect by 2020 could be a loss of customer-facing investment support of up to $6 billion and $5.2 billion available to larger and smaller carriers, respectively. The predictable result is reduced investment in many areas.*
- ***Investment is already collapsing in many areas****. The two largest rural lenders report sharply lower recent loans for infrastructure investment. The major cooperative bank, CoBank, reports no 2012 loans for network improvements. The Department of Agriculture's Rural Utilities Service (RUS) has annually loaned all its available funds . . . until 2012 when rural telcos tapped only 11.6% of the $690 million available. In 2012, only 9.4% was borrowed of the $736 million available for RUS broadband loans.*
- ***Critical telecom services.*** *Because traditional USF is terminated, the reforms could put at risk even terrestrial voice and 911 services if a carrier decides it cannot justify accepting federal support with the new broadband mandates. The potential loss of combined state and federal support could affect customers who likely need services the most. Carriers will have no choice except to focus on economic clusters of population and withdraw from offering broadband and voice services to high-cost customers.*
- ***Wireless broadband rate problem.*** *Wireless is <u>not</u> a replacement broadband service, not only due to reliability issues, but because wireless broadband pricing is increasingly volume-based and is expected to remain prohibitively high compared with far more affordable terrestrial services.*

[1] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996) (Telecom Act), Section 254(b)(5).

maintain network services in high-cost regions. If rural communications networks fail or falter in the near term, it will be difficult to recover. The ultimate risk will be defined by the damage to local economies, emergency preparedness and social environments.

- **Major federal reform and reductions in support payments will affect customers in many high-cost rural regions.** The Federal Communications Commission's (FCC) 2011 reforms appear to impose new costly obligations while sharply reducing total federally-regulated support—USF and intercarrier compensation (ICC) payments—in large parts of most states. In many of these high-cost rural regions, customers who rely on local exchange carrier networks for voice and broadband services will be affected by lower levels of investment. We estimate that between now and 2020, larger "price-cap" carriers, such as AT&T, CenturyLink, Consolidated Communications, Frontier, Windstream, and others should expect a possible *reduction* of 85%-90% in support revenues derived from the historical forms of USF and intercarrier compensation—revenues that formerly were used to invest in and provide services in high-cost regions at customer rates that are generally comparable with urban rates.[2] We note that the reductions for these areas will be offset in part by *up to* $1.8 billion annually designated for the Connect America Fund (CAF) II program that is in the process of being implemented and which is intended to provide support for only 25% of high-cost rural areas (albeit more fully in some areas compared with the previous mechanisms).[3] The new reforms *terminate* the former USF, which *may* be replaced by funding for new and costly obligations and may flow to alternative providers. The likely impact in certain regions will be less or potentially no investment for voice and broadband in certain regions. We estimate that, even if the CAF II allocation is accepted in its entirety, the funding available to price-cap carriers will fall far short—offering support for less than one-third—of the costs in meeting the new obligations, which will leave areas not covered by CAF II without sufficient support for both terrestrial voice and broadband networks. For customers served by smaller rural carriers, the contraction in support (USF and ICC) is estimated to be approximately 35% of total regulated revenues over the same period and the cash-flow impacts will be far larger.[4] Significantly, replacement CAF funding has yet to be defined for high-cost areas. By 2020, the

The new reforms terminate the former USF, which may be replaced by funding for new and costly obligations. We estimate that the funding available to price-cap carriers will fall far short—offering support for less than one-third—of the costs in meeting the new obligations, which will leave areas not covered by CAF II without sufficient support.

[2] The price-cap carriers are AT&T Alaska Communications Systems Group, CenturyLink, Cincinnati Bell, Consolidated Communications, FairPoint Communications, Frontier Communications, Hawaiian Telcom, Federated States of Micronesia Telecom, Puerto Rico Telephone, Verizon, Virgin Islands Telephone, and Windstream, which collectively serve large rural regions of all states and territories in the United States; the calculation of the shortfall is a Balhoff & Williams estimate of losses of intercarrier compensation and USF, excluding future uncertain CAF II funding and excluding end-user Access Recovery Charges (ARC) which is not a Subscriber Line Charge, since the FCC expects it to phase down; see Transformation Order, ¶ 36: the ARC is "a transitional recovery mechanism . . . that will phase down over time . . ."

[3] The exclusion of CAF II from this analysis may at first appear extreme, as the FCC proposes to provide up to $1.8 billion in CAF to price-cap carriers. The reality, however, is that the price-cap carriers only accepted about one-third of the one-time $300 million in CAF I Incremental funding offered in 2012 for network investment; the rationale was that they judged the funding to be insufficient to meet the new obligations. An analysis that assumes the draw-down of $1.8 billion is aggressive, in our judgment, in light of the indications from carriers that are signaling a careful assessment of funding and new costly obligations in high-cost regions. We believe that, like the CAF I funding, it is likely that a large percentage of the $1.8 billion will be rejected. Our analysis is based on the best figures we have available and excludes funding that we must assume is going to be rejected in many regions.

[4] Estimate by the National Exchange Carrier Association (NECA).

cumulative reduction of support made through price-cap carriers (excluding AT&T and Verizon) is approximately $6 billion and the small-carrier cumulative reduction is expected to be about $5.2 billion. The reform's effect, without incremental state support, is predictable. Where there is insufficient support, customers outside of regions that are economic-to-serve or funded adequately will risk losing access to critical services, including voice and broadband. This means that for many rural areas the result of the federal reforms appears to be precisely the opposite of the new investment predicted by the Commission, even if other rural areas benefit from the reforms.[5]

The reform's effect is predictable. In the absence of sufficient support funding, customers will have fewer choices to subscribe to critical services, including voice and broadband, except in regions that are economic-to-serve or funded adequately. This means that for many rural areas the result of the FCC reforms appears to be precisely the opposite of the new investment predicted by the Commission, even if other rural areas benefit from the reforms.

- **Universal Service policy and law.** USF is federal policy and law. The policy is to assure investment and operation of telecommunications networks serving customers in high-cost regions. The FCC explains that the policy purpose is to provide services "crucial to our nation's economic growth, global competitiveness, and civic life."[6]
- **The challenge in serving uneconomic regions.** Policymakers may assume that consolidation will occur among small carriers and reduce the uneconomic burden, with the result that high-cost regions will be served more effectively by relatively larger carriers. The reality is different. While it is true that some efficiencies—capital and operating—can be achieved through consolidation, *uneconomic-to-serve areas generally remain uneconomic without supplemental support, regardless of the size of the carrier.* Tangible, real-world evidence of this reality can be deduced from the fact that many cable companies choose to avoid serving in high-cost regions where there is no regulatory requirement that they provide such service. Further, AT&T—the largest wireline carrier in the U.S.—has stated that it cannot justify investing in 25% of its landline network because of high costs, presumably without support from USF.
- **States must begin their analyses immediately.** The FCC is working on a model for CAF II funding and will likely issue an order at the end of this year or possibly early next year. In that order, the FCC may start a 120-day clock for the carriers to accept or reject CAF II funding. If the costs of the obligations exceed the federal support, as is likely in many areas or possibly in most regions, the carriers will reject the federal support, as occurred in 2012 when nearly two-thirds of the CAF one-time funding was rejected. We assume that the states may be open to adding state funds to supplement inadequate federal funds and

[5] See Statement of Chairman Julius Genachowski, November 18, 2011, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-161A1.pdf; "New wired and wireless broadband will be a lifeline for rural communities currently being bypassed by the Internet revolution. Young people who didn't see a future in their small hometowns will now be able to access a new world of opportunity. . . . Today's action has the potential to be one of the biggest job creators in rural America in decades. We estimate that the Order as a whole will unleash billions in private sector broadband infrastructure spending in rural America over the next decade,"

[6] *See Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing a Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up; Universal Service Reform—Mobility Fund*; WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC 17663 (2011) (USF/ICC Transformation Order); *pets. for review pending sub nom. In re: FCC 11-161*, No. 11-9900 (10th Cir. filed Dec. 8, 2011), ¶¶ 1-3.

combine with the carriers' qualifying dollars to assure terrestrial voice and broadband investment in rural areas. *If we understand this correctly, we cannot say strongly enough that the states have a very tight window to analyze the challenges.* State policymakers cannot wait until the FCC issues its CAF II Order to begin their analyses because 120 days will be too short. Further, the states will not want to wait until the carriers reject the funding, because the states are at risk of losing critical federal support.

- **"Support" is different from a "subsidy."** Opponents of USF often use disparaging references to "subsidies" when arguing against the USF policy program. "Subsidies" are, in the strictest sense, assistance to a troubled business or to an economic sector to help the producers or the industry remain viable, including against other competitors, which are often foreign entities. However, USF is not fundamentally "assistance" to help a struggling carrier or sector, nor is it a protection for the carriers. In fact, wireline carriers can often have successful businesses if they are able to concentrate their operations on profitable services and customer clusters. If there is a "protection," it is to assure that customers are served in regions where no provider—on its own—is able to offer an economic service. The "support" payments are part of a partnership—clearly established in federal legislation—between private carriers and policymakers who choose to "purchase" another "product-set" in high-cost regions, which is customer service that otherwise would not be provided in those regions. The distinction is important at the start of this White Paper, as USF is a policy commitment to customers not to companies. And companies will be compelled to drop high-cost services without that ongoing policy commitment.

Introduction

State support for universally available advanced telecommunications and broadband services has never been more important.

There are three primary reasons that state USF support is front and center today.

- **Broadband is a necessary service.** Broadband networks are increasingly vital for state citizens in terms of economic opportunity, education, health care, public safety, emergency management, and other social benefits.

Broadband networks are increasingly vital for state citizens in terms of economic opportunity, education, health care, public safety, emergency management, and other social benefits. . . . It is important that policymakers understand that these reforms appear to put at risk the voice as well as broadband investment in many regions, because a carrier that cannot accept broadband obligations at CAF funding levels will lose all universal service funding.

- **Federal support is declining.** Federal support—realized through federal USF in combination with all intercarrier payments—is declining at sharp rates and/or being re-defined as support for broadband in select high-cost areas, driven at least in part by FCC reforms ordered in 2011. It is urgently important that policymakers understand that these reforms appear to be putting at risk the voice as well as broadband investment in many regions, if a carrier cannot accept the new broadband obligations at CAF funding levels. The effect of rejecting CAF funding and obligations, presumably because the funding is insufficient, is the loss of *all universal service funding*. Thus, voice services and 911 services also may be lost if a carrier is unable to accept new uneconomic broadband build-out obligations, and no other carrier is willing to accept the obligations.[7] State policymakers will be forced to confront the challenge of the funding shortfall in those areas if the goal of universally available basic voice and 911 services and/or advanced communications infrastructure is to remain viable.[8]

[7] The FCC has indicated its intention to sponsor auctions of support monies if the incumbent carrier is unwilling to build sufficient networks, but the auction process is unclear. Further, it is very possible that no carrier will be willing to accept policy obligations in certain regions and that, like the so-called D-Block auctions of wireless spectrum, no carriers will show up for the auction. If the investment case is insufficient, we expect that there will be no rational and capable bidders for many regions.

[8] Transformation Order, ¶ 15: "We recognize that USF and ICC are both hybrid state-federal systems, and it is critical to our reforms' success that states remain key partners even as these programs evolve and traditional roles shift. Over the years, we have engaged in ongoing dialogue with state commissions on a host of issues, including universal service. We recognize the statutory role that Congress created for state commissions with respect to eligible telecommunications carrier designations, and we do not disturb that framework. We know that states share our interest in extending voice and broadband service, both fixed and mobile, where it is lacking, to better meet the needs of their consumers. Therefore, we do not seek to modify the existing authority of states to establish and monitor carrier of last resort (COLR) obligations. We will continue to rely upon states to help us determine whether universal service support is being used for its intended purposes, including by monitoring compliance with the new public interest obligations described in this Order. We also recognize that federal and state regulators must reconsider how legacy regulatory obligations should evolve as service providers accelerate their transition from the Public Switched Telephone Network (PSTN) to an all IP world."

- **Competition in other regions *increases* the need for greater support in high-cost regions.** The third reason is that, because of competitive pressures, it is no longer possible for companies to cross-support high-cost areas based on high rates in other more economic regions. The cross-support was once significant, but is no longer a policy goal or economic possibility in a competitive telecommunications market. For price-cap carriers, this former universal service approach with internal-company redistribution of funding has been unworkable since the implementation of the Telecommunications Act of 1996, and largely explains the gap in broadband deployment in high-cost rural areas served by price-cap carriers on the one hand and rate-of-return carriers on the other hand—the "rural/rural divide."

The purpose of this White Paper is to provide state policymakers with the rationale behind supporting universal service. And a related purpose is to focus state legislators and commissioners on the fundamental problem so they can begin (or rededicate themselves) to address an emerging policy problem, which has the potential to affect voice and broadband services for many of the citizens of their states, according to an economic analysis performed in connection with the publication of a recent Department of Agriculture rule.[9]

Telecom Act, §254(b)(3): "Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas."

Foundational to the discussion in this White Paper are certain tenets.

- First, *customer network-based services have always been the goal of universal service*. This point is important as this White Paper outlines issues related to funding received for the single goal of serving customers, not for the benefit of the companies. A related insight is that universal service is not support for individual customers, but for networks that serve those customers.[10]

[9] US Department of Agriculture Executive Order 12866, effective February 6, 2013, available at http://www.gpo.gov/fdsys/pkg/FR-2013-02-06/pdf/2013-02390.pdf; "This rule [pertaining to the Rural Broadband Access Loan and Loan Guarantee Program (Broadband Loan Program] has been determined to be economically significant and was reviewed by the Office of Management and Budget under Executive Order 12866. In accordance with Executive Order 12866, an Economic Impact Analysis was completed, outlining the costs and benefits of implementing this program in rural America. . . . Because rural systems must contend with lower household density than urban systems, the cost to deploy fiber-to-the-home (FTTH) and digital subscriber line (DSL) systems in urban communities is considerably lower on a per household basis, making urban systems more economical to construct. Other associated rural issues, such as environmental challenges or providing wireless service through mountainous areas, also can add to the cost of deployment. Notwithstanding these challenges and obstacles, a recent analysis by USDA's Economic Research Service concluded that broadband investment in rural areas yields significant economic and socioeconomic gains . . ."

[10] It is sometimes argued that, because of their wealth, certain customers in rural regions can afford to pay for their more costly services. The contention is that there should be a "means test" to evaluate whether, for example, an affluent rancher can pay more. However, universal service is not a funding directed to individual customers but to network infrastructure and operations that serve customers across a high-cost regions. A customer-focused support mechanism is unlikely to be predictable and sufficient for any carrier to deploy and operate in such high-cost regions. The conceptual theory does not involve estimation and supplement for individual customer services, but

- Second, industry experts point to a distinction related to the *concept of support rather than subsidies*, which is a corollary of the first tenet. "Subsidies" are, in the strictest sense, assistance to a troubled business or to an economic sector to help the producer. USF is not fundamentally an "assistance" to help a struggling carrier or sector. In fact, wireline carriers can often have successful businesses if they are able to concentrate their operations on profitable services and customer clusters. However, state and federal governments have chosen to "purchase" another "product-set" in high-cost regions, which is customer service that otherwise would not be provided in those regions.[11] As such, policymakers are "supporting" services in partnership with the carriers' investments in uneconomic regions, and effectively purchasing/partnering to realize sufficient levels of network investment and the provision of services. The challenge is sizeable as small rural carriers account for about 5% of the U.S. telephone access lines but serve more than 40% of the land mass. In addition, other large carriers such as CenturyLink, Frontier and Windstream serve even larger geographic regions where the population density is low; and larger carriers serve as much as 80% of the households that today are without access to broadband according to FCC estimates.[12] In light of the legislative goal of ubiquitous services comparable to those in urban areas, policymakers have chosen for decades to "lower barriers to investment" so that customer networks and services can be supplied. The industry emphasizes that these are not classic "subsidy" payments to companies, but a policy decision about supporting or "purchasing" services in high-cost areas to realize customer benefits that include safety, economic stability, health care, emergency management, social goals and other reasons.

Rural carriers are quick to clarify terms because of the pejorative connotations associated with the term "subsidy." As noted above, *USF support is not a subsidy to certain companies, but a partial payment for defined, regulated customer services to assure the realization of benefits that are nationally-mandated policy goals* articulated in the Telecom Act, section 254(b)(3). If policymakers choose to eliminate the support, they are effectively directing carriers that are currently serving in high-cost regions to a different policy outcome and an alternative business model, which will be focused on customers and regions that can be served economically.

The pejorative connotations associated with the term "subsidy" strictly speaking suggest discretionary payouts for troubled industries or protectionism against foreign competitors. In contrast, USF "support" is not a subsidy to certain companies, but a payment for defined, regulated customer services to assure the realization of benefits that are nationally-mandated policy goals.

- Third, there is sometimes debate over *whether it is necessary to provide support to relatively larger carriers* that have the ability to "cross-support" services in uneconomic regions. The incorrect implication either is that large carriers do not have the same costs in those high-cost regions, or that they should be compelled to absorb the uneconomic costs despite facing competition in their other service areas (and those competitors have no costly policy obligations).

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the provision of a network in high-cost regions in such a way that rates and services are comparable to those in urban regions.

[11] Transformation Order, ¶ 5: "Today's Order focuses on costly-to-serve communities where even with our actions to lower barriers to investment nationwide, private sector economics still do not add up, and therefore the immediate prospect for stand-alone private sector action is limited."

[12] See, e.g., Commissioner Jessica Rosenworcel, Rural Telecom Industry Meeting & Expo, Orlando, Florida, February 4, 2013, available at http://www.fcc.gov/document/commissioner-rosenworcels-remarks-rural-telecom-meeting-expo.

AT&T quantified that 25% of its wireline network cannot be served without support revenues, and is alluding to wireless LTE "as it becomes available." The point is that even the largest carriers cannot justify absorbing uneconomic investments in high-cost regions.

Refuting the theory that large carriers can and will absorb high costs in rural regions, AT&T provides a telling case study as the largest landline network-provider in the United States. In early 2012, AT&T reported that it had been unable to find an economic solution for deploying broadband in "underperforming" rural regions, even with wireless technologies.[13] Since that time, the company announced in early November 2012 that it would focus on extending its wireless Long-term Evolution, which is a 4G service (LTE).[14]

However, "in the 25 percent of AT&T's wireline customer locations where it's currently not economically feasible to build a competitive IP wireline network . . . [AT&T] will utilize its expanding 4G LTE wireless network—as it becomes available."[15] In these candid announcements, AT&T quantified that 25% of its wireline network cannot be served without support revenues, and, without obliging itself to any service standards, is making general reference to wireless LTE "as it becomes available." The point is that even the largest carriers cannot justify absorbing uneconomic investments in high-cost regions.

The financial commentary is straightforward. Policy support is directly related to customer networks and services, and the withdrawal of sufficient support by policymakers will determine the viability or failure of critical services in rural regions.

In a related development, AT&T and Verizon in particular, and other ILECs to a lesser degree, have been increasingly successful in a campaign to gain regulatory relief from their former carrier-of-last-resort (COLR) obligations.[16] To date, COLR requirements have been reduced or potentially eliminated in 16 states, giving ILECs varying degrees of freedom to make the economic decision about whether to serve customers in the absence of universal service support.[17] The message is that costs remain high in certain rural regions, and that carriers without

[13] AT&T fourth quarter 2011 earnings report to analysts, January 26, 2012, transcript available at http://seekingalpha.com/article/322378-at-t-s-ceo-discusses-q4-2011-results-earnings-call-transcript?part=qanda; responding to a question from Morgan Stanley analyst, Simon Flannery, AT&T CEO Randall Stephenson commented that "So the other [underperforming asset] being rural access lines, we have been apprehensive on moving, doing anything on rural access lines because the issue here is, do you have a broadband product for rural America? And we've all been trying to find a broadband solution that was economically viable to get out to rural America and we're not finding one to be quite candid. The best opportunity we have is LTE and we were obviously rather excited about the opportunity to use LTE to get it to rural America with the T-Mobile transaction. That having been set aside, now we're looking at rural America and asking, what's the broadband solution? We don't have one right now." Subsequently, AT&T disclosed that it was not going to divest rural lines, but the explanation appears to be that the company cannot find a satisfactory transactional exit.

[14] AT&T to Invest $14 Billion to Significantly Expand Wireless and Wireline Broadband Networks, Support Future IP Data Growth and New Services, November 7, 2012, available at http://www.att.com/gen/press-room?pid=23506&cdvn=news&newsarticleid=35661&mapcode=corporate|consumer; the company expects that over the next three years, approximately $8 billion will be spent on its wireless network and $6 billion on the wireline network.

[15] *Id*.

[16] See, e.g., Henry Lancaster, "How Far Will U.S. Regulators Bend to AT&T and Verizon?" November 14, 2012, CircleID, available at http://www.circleid.com/posts/20121114_how_far_will_us_regulators_bend_to_att_verizon/.

[17] The states are Alabama, Florida, Georgia, Illinois, Indiana, Kansas, Maine, Michigan, Missouri, Mississippi, Nebraska, North Carolina, Ohio, Texas, Virginia, and Wisconsin. There is pending COLR-relief legislation in Arkansas, Connecticut, Kansas, and Kentucky.

appropriate support should not be compelled to meet legacy policy-based COLR obligations.

The predictable result, without sufficient support, is that carriers will sooner or later avoid investment and services in uneconomic regions and eventually withdraw from serving those customers. The financial commentary is straightforward. Policy support is directly related to customer networks and services, and the withdrawal of sufficient support by policymakers will determine the viability or failure of critical services in rural regions.

The main sections of this report are organized around key themes and data.

- The USF policy framework
- The financial problem that is emerging for the states
- The issues that must be addressed by states

I: The USF policy framework

Policymakers should understand the affirmative goals associated with USF policy, and how the FCC's Transformation Order has shifted the financial risks. Three key policy watershed events for USF are summarized briefly below:

- The Telecommunications Act of 1996;
- The universal service and intercarrier compensation reforms of 2000 and 2001; and
- The recent universal service and intercarrier compensation reforms ordered by the FCC in October 2011.

The Telecommunications Act of 1996

The Telecom Act provides the first explicit legislation of a national universal service policy, although the concept had roots in the practice and regulations over the previous century.[18] The landmark Telecom Act legislation remains foundational in directing the specific practices and regulations spelled out in the orders of the FCC and the states since 1996.

Section 254 of the Telecom Act provides a concise and clear statement of the seven fundamental universal service "principles," of which the first three and the fifth specifically focused on funding network investment in high-cost regions.[19] The statute mandates support for network investments that assure . . .

- Availability of reasonably comparable telecommunications services in urban and rural areas;
- Reasonably comparable rates for similar services in urban and rural areas;
- Access to advanced services for consumers in all regions of the country;
- Universal service support funding that is specific, predictable and sufficient; and
- Support mechanisms relying on federal and state collaboration.

The Telecom Act provided the legislative mandates to assure more competitive local markets, while also explicitly spelling out in section 254(b)(3) the "covenant" to support customers in high-cost areas. Prior to the Telecom Act, Universal Service goals were achieved through the monopoly carrier's ability to implicitly "cross-fund" certain regions, often described as business customers supporting residential customers, urban customers supporting rural customers and long distance services supporting local services (through switched

[18] See, for example, the Communications Act of 1934, which sets the goal to make "available … to all the people of the United States … a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges." 47 U.S.C. §151.

[19] Telecom Act. Section 254(b): "Quality services should be available at just, reasonable, and affordable rates . . . . Access to advanced telecommunications and information services should be provided in all regions of the Nation . . . . Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas" The fifth principle required that universal service should be "preserved and advanced" through "specific, predictable and sufficient Federal and State mechanisms." The remaining three principles addressed how funding was to be collected, access to advanced services for schools and libraries, and the potential for adding new principles."

access payments among carriers). Since passage of the Telecom Act, such "cross-funding" is no longer possible as competitors have captured significant market share among business and residential customers in areas where no support is required. It is important to restate the insight that growth in competition creates pressures on the former implicit support structure because cross-funding is no longer possible, necessitating policy responses—a new formulation of the covenant—in the Universal Service model.

The systemic changes in the wake of the Telecom Act included reductions to intercarrier payments such as access charges paid to local telephone companies. To ensure cost-based competition and to assure sufficient funding to offset the "lost" support payments associated with serving high-cost areas, the FCC mandated increases in customer rates and the creation of new, explicit federal USF programs. The implementation of section 254 had varying success, however, as FCC implementation approaches relied on ongoing cross-funding, cost averaging, and implicit support through increasingly unstable intercarrier compensation. These issues were particularly acute in areas served by price-cap carriers, as evidenced, for example, by persistent, successful legal challenges by Qwest Communications.[20]

Universal Service and Intercarrier Compensation Reforms of 2000 and 2001

After the Telecom Act, the FCC and many states relied on Section 254's seven principles to order new systems implementing the federal universal service imperative, including reforms of support embedded in intercarrier compensation—payments among various carriers (wireless, long-distance and local telephone companies). It is noteworthy that these USF and intercarrier compensation reforms were adopted in unified orders, as the reforms required a holistic perspective of explicit and implicit support mechanisms.

This insight related to ICC as a support mechanism is important. Intercarrier payments, including those called "access charges," may be significantly—and possibly primarily—"support" mechanisms to assure universally available communications services, including in high-cost regions. While there is some element of cost-based payment for services between the carriers, there is also important implicit "universal service" support funding in the intercarrier rates that ultimately benefits customers who rely on network investment.[21] A key insight is that the "common costs"—not simply the variable costs—were effectively shared by the incumbent carrier and the other carriers using the network. Accordingly, the post-Telecom Act reform of intercarrier compensation was, at least in part, a restructuring of implicit support into explicit universal service support. We will explain later that the recent reforms *eliminate* a large percentage of ICC, which is a major change in "support" revenues for carriers that have been committed to serving high-cost regions.

Intercarrier payments, including those called "access charges," may be significantly—and possibly primarily—"support" mechanisms to assure universally available communications services, including in high-cost regions.

[20] Qwest Communication s Int'l Inc. v. FCC, 398 F.3d, 1222 (10th Cir. 2005); Qwest Corp. v. FCC, 258 F.3d 1191 (10th Cir. 2001).

[21] It can be argued that the vast majority of intercarrier compensation is a support mechanism. Stated differently, if a local carrier loses all of its intercarrier revenues, its variable costs will apparently decline very little because there is minimal "intercarrier-specific cost" that is eliminated. When one evaluates the financial realities, a local telecommunications carrier invests in network that must generate an appropriate profit from monthly customer rates, intercarrier transport and some combination of "support" derived from USF and intercarrier policy-based rates. Those costs do not disappear for the most part when intercarrier revenues disappear. Importantly, the principle of access charges was to share "common costs" which are different from "marginal costs"; the financial effect in eliminating access charges is to leave the common costs with the incumbent wireline carrier.

Responding to market and political pressures, the FCC reduced intercarrier compensation rates, while reforming universal service in combined FCC orders, first for larger price-cap carriers in May 2000 (CALLS Order), and, then, for smaller rate-of-return carriers in October 2001 (MAG Order).[22] Importantly, the FCC created new universal service fund mechanisms in the CALLS and MAG Orders to offset a portion of the support payments lost due to intercarrier rate reductions that could not be recovered from end-user rate increases at levels that were deemed reasonable.

FCC Reforms in October 2011

In October 2011, to build upon or replace the CALLS and MAG Orders, the FCC established in its *Connect America Fund, A National Broadband Plan for Our Future* (Transformation Order) a new reform of universal service and intercarrier compensation payments "to modernize" the systems and address long-standing concerns by recipients and payers alike that the system was "broken and unsustainable." The FCC expanded the definition of universal service and stated the affirmative goal to . . .

> ". . . ensure that robust, affordable voice and broadband service, both fixed and mobile, are *available to Americans throughout the nation*. . . . Networks that provide only *voice service, however, are no longer adequate for the country's communication needs. Fixed and mobile broadband have become crucial to our nation's economic growth, global competitiveness, and civic life.* Businesses need broadband to attract customers and employees, job-seekers need broadband to find jobs and training, and children need broadband to get a world-class education. Broadband also helps lower the costs and improve the quality of health care, and enables people with disabilities and Americans of all income levels to participate more fully in society. Community anchor institutions, including schools and libraries, cannot achieve their critical purposes without access to robust broadband. Broadband-enabled jobs are critical to our nation's economic recovery and long-term economic health, *particularly in small towns, rural and insular areas, and Tribal lands*."[23] (Emphasis added.)

Community anchor institutions, including schools and libraries, cannot achieve their critical purposes without access to robust broadband. Broadband-enabled jobs are critical to our nation's economic recovery and long-term economic health, particularly in small towns, rural and insular areas, and Tribal lands.

The key principles, as stated at the beginning of the Transformation Order, are to . . .

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[22] *See In re Access Charge Reform*, Sixth Report and Order in CC Docket Nos. 96-262 and 94-1, Report and Order in CC Docket No. 99-249, Eleventh Report and Order in CC Docket No. 96-45, 15 FCCR 12962 (CALLS Order) and *Multi-Association Group (MAG) Plan for Regulation of Interstate Service of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers*, CC Docket No. 00-256, Second Report and Order, Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Fifteenth Report and Order, Access Charge Reform for Incumbent Local Exchange Carriers Subject to Rate-of-Return Regulation, CC Docket No. 98-77, Report and Order, Prescribing the Authorized Rate of Return for Interstate Service of Local Exchange Carriers, CC Docket No. 98-166, Report and Order, 16 FCCR 19613 (2001) (MAG Order).

[23] *See Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing a Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up; Universal Service Reform—Mobility Fund*; WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC 17663 (2011) (*USF/ICC Transformation Order and FNPRM*); *pets. for review pending sub nom. In re: FCC 11-161*, No. 11-9900 (10th Cir. filed Dec. 8, 2011). (Transformation Order), ¶¶ 1-3.

- Preserve and advance universal availability of voice service;
- Ensure universal availability of modern networks capable of providing voice and broadband service to homes, businesses, and community anchor institutions;
- Ensure universal availability of modern networks capable of providing advanced mobile voice and broadband service;
- Ensure that rates for broadband services and rates for voice services are reasonably comparable in all regions of the nation; and
- Minimize the universal service contribution burden on consumers and businesses.[24]

Several points might be made about the Transformation Order. First, there are valuable elements in the FCC's reforms, particularly related to service in economic-to-serve regions and in some uneconomic areas served by carriers. Reform of the former intercarrier compensation system was important because the previous regime was complex and often resulted in costly distortions.[25] With respect to USF, there were obvious problems, including the need to revise support for wireless and other competitive carriers and to address certain underfunded service areas. And, the new reforms shifted the emphasis from investments in voice-centric, circuit-switched networks to investments in broadband that were appropriate for an increasingly IP world.

Second, the problems arising from the Transformation Order appear most significant in some of the more vulnerable, high-cost areas where support funding is most critical. State reform will apparently become more important, including for areas that will not receive sufficient federal support. As explained in more detail below, it appears that the Transformation Order ultimately will reduce support for certain high-cost rural areas, as well as impose new and costly obligations in some others. This modification of overall support funding and obligations will have a predictable effect as investment in some—or arguably many—rural areas is likely to be curtailed. In fact, reductions in investment are apparently already occurring, as will be explained below.

"Reformed" support will be available only to carriers, if any, that are willing to accept certain new obligations, while there is no explicit commitment in the text or in the ordering clauses to provide mechanisms that ensure specific, predictable, and sufficient support for enabling the provision of comparable services in rural regions.

Third, the Transformation Order appears to have abandoned—or at least altered—a portion of the Telecom Act's statutory language in some areas. While the Telecom Act defined a goal of "comparable services for comparable rates," the Transformation Order focuses on comparable rates while effectively reducing (or, at a minimum, dramatically redefining) the commitment to the concept of "comparable services." The Transformation Order first conspicuously omits "comparable services" when it specifies at the outset the goal of "comparable rates."[26] Then "reformed" support will be available only to carriers, if any, that are willing to accept certain new obligations, while there is no explicit commitment in the text or in the ordering clauses to provide mechanisms that ensure specific, predictable, and sufficient support for enabling the provision of comparable services in rural regions.

Carriers such as AT&T, CenturyLink, Frontier, Verizon, and Windstream have long argued they did not receive specific, predictable and sufficient funding to ensure comparable services in high-cost service regions,

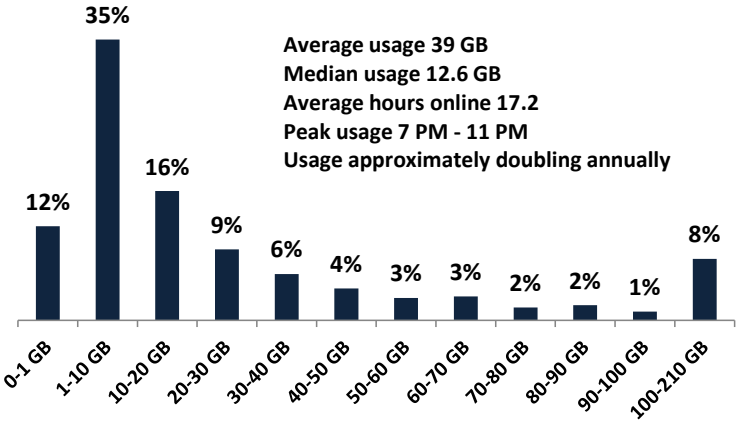
[24] Transformation Order, ¶ 17.
[25] Examples include mislabeled traffic (phantom traffic) and traffic pumping in which long-distance calling volumes were increased through various manipulative schemes.
[26] Transformation Order, ¶ 17.

a point that appears to be borne out by service levels in the high-cost areas they serve. The change in the Transformation Order is that some high-cost areas served by those and other price-cap carriers will no longer receive support for terrestrial voice or broadband, while smaller carriers may also be compelled to evaluate where they can or cannot invest in comparable voice and broadband services in light of new obligations and funding restrictions. Effectively, the goal of comparable services appears to be diminished or abandoned in many areas by the Transformation Order.

And, notably, the Transformation Order defines "reasonably comparable" broadband services as those based on 4-6 Mbps download speeds and 1 Mbps upload speeds, in spite of the fact that most urban areas have cable operators and telecommunications companies that are supplying services at speeds that are faster by factors that generally range from 4 times to 20 times.[27] The Order stands in contrast to the FCC's 2013 study which reported that the average subscribed speed for broadband in the United States is already 15.6 Mbps, which represents an annualized speed increase of 20%.[28] The effect of the Transformation Order's definition is to *limit* the level of support funding, and "adjust" the statutory language to defined services that are no longer comparable with those in many or most urban areas.

A fourth important point is that the federal reforms apparently are focused on the cost efficiencies that *assume* increased reliance on, or substitution for, wireless broadband services. This appears to be the rationale for setting the 4/1 Mbps standard.[29]

Figure 1: Rural broadband residential usage/mo. by subscriber



Source: Balhoff & Williams, LLC; confidential data of a rural carrier, June 2012

However, the assumption about the adequacy or the substitutability of wireless broadband should be tested. Currently, wireless coverage in rural regions is spotty and inconsistent. But even if one assumes that voice and data coverage can be achieved consistent with the redefinition of universal service in the Transformation Order reforms, there is another important problem.

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[27] See Transformation Order, ¶¶ 76-108; the Order provides for an eventual "benchmark of 6 Mbps downstream and 1.5 Mbps upstream for broadband deployments in later years of CAF Phase II." The FCC does state at Transformation Order ¶ 24 that it anticipates "that CAF obligations will keep pace as services in urban areas evolve, and we will ensure that CAF-funded services remain reasonably comparable to urban broadband services over time," but the Order strictly limits funding to $1.8 billion for price-cap carriers (¶ 158) and $2 billion for rate-of-return carriers (¶ 195).

[28] 2013 Measuring Broadband America, A Report on Consumer Wireline Broadband Performance in the U.S., February 2013, available at http://transition.fcc.gov/cgb/measuringbroadbandreport/2013/Measuring-Broadband-America-feb-2013.pdf. The National Telecommunications and Information Administration reports that, based on data from June 2011, a significant gap exists in download speeds between rural and urban areas; see, NTIA, *Broadband Availability Beyond the Rural/Urban Divide*, May 2013, available at http://www.ntia.doc.gov/report/2013/broadband-availability-beyond-ruralurban-divide.

[29] Transformation Order, ¶ 98.

Wireless broadband services are *expensive*. This is particularly the case when broadband is consumed in volumes that are comparable with those used for wireline broadband, which are available at monthly rates between $35 and $60. Illustrating the problem, AT&T's wireless data plan is available for approximately $120 month for 10 GB of data, with a price of $15 monthly for each incremental GB of usage.[30] Verizon Wireless' rates for 10 GB start at $100 and then increase at a rate of $15 monthly for each incremental GB.[31] However, Figure 1 illustrates a rural carrier whose actual June 2012 wired data usage *averaged* 39 GB monthly with a *median* subscriber usage of about 13 GB. These figures are consistent with those described in the Transformation Order.[32] Further, total consumption of broadband is growing each year, reportedly 30%-100%.

If a customer subscribed at the AT&T or Verizon *wireless* data rates, the *monthly* charge for the *median* user in the example above would be approximately $165 or $120 using "shared" programs of the two carriers, respectively.[33] For the *average* user, based on 39 GB per month, the wireless data *monthly* rates for a consumer using Verizon would be approximately $300 and for AT&T $400.[34] Without even considering the quality of service, the wireless broadband rates are so high that few subscribers could pay the rates in urban or rural areas, and those price levels fail the standard of "rate comparability" required by the Telecom Act in section 254 (when compared to the relatively low rates for wired broadband services that allow for much higher usage limits). And, if the growth rates for data usage are as reported, the pricing disparity is expected to grow over the next years.

Without even considering the quality of service, the wireless broadband rates are so high that they fail the standard of "rate comparability" required by the Telecom Act in section 254 (when compared to the rates for wired broadband services in urban areas that allow for much higher usage limits). And, if the growth rates for data usage are as reported, the pricing disparity is expected to grow over the next years.

In summary, the Telecom Act's legislative language appears clear that universal service—comparable services for comparable rates—should be available for all regions in the United States. The Transformation Order enlarges that definition to include broadband services, but the federal support funding that is ordered appears to be far more restrictive as found in the limited definition of broadband (4/1 Mbps) in rural regions, new constraints on the amount of available support funding, and elimination of the intercarrier compensation payments that have historically been an integral universal service support component. To emphasize that last point, a concern remains that intercarrier revenues (at least

[30] See AT&T data plan, available at http://www.att.com/shop/wireless/plans-new.html#fbid=vA-SKIw6SQy; the plan calls for incremental charges depending on the number of devices that use the data service.
[31] See Verizon Wireless data plan, available at http://www.verizonwireless.com/wcms/consumer/shop/share-everything.html; it is possible to subscribe to higher data plans at slightly lower rates so, for example, 20 GB are available for $150 per month and 30 GB for $225.
[32] The FCC noted in its Transformation Order, ¶ 99, that 2009 wired broadband usage was 10 GB per month, and that "annual per user growth was between 30 and 35 percent. We note that AT&T's DSL usage limit is 150 GB and its U-Verse offering has a 250 GB limit. Since 2008, Comcast has had a 250 GB monthly data usage threshold on residential accounts."
[33] Verizon Wireless also has plans set at 12 GB for $110/month, 14 GB for $120/month, $16 GB for $130 month as well as higher volume plans; when a customer exceeds the plan, the charges are $15 for each incremental GB.
[34] The analysis assumes the purchase of 40 GB monthly; see AT&T wireless data rates, available at http://www.att.com/shop/wireless/plans/mobilesharedata.html and Verizon Wireless data rates, available at http://www.verizonwireless.com/wcms/consumer/shop/share-everything.html.

terminating ICC) have been eliminated by the end of this decade with no replacement mechanism, except the potential to raise customer rates, possibly sharply.

Understanding the financial change

The Transformation Order freezes the overall budget for the new high-cost fund at $4.5 billion, which is consistent with levels in effect at the time of the Order.[35] Setting aside smaller fund assignments, the FCC designated primary potential support of customer networks under three general categories: (i) funds directed through price-cap carriers (up to $1.8 billion); (ii) funds directed through rate-of-return carriers (approximately $2 billion); and funds directed through wireless carriers ($500 million).

Table 1: Summary of New Support Structures

	Price cap	Rate of return	Wireless
Pre-reform fund size	$1.076 billion	$2 billion	$1.22 billion
Post-reform fund size	Up to $1.8 billion	$2 billion	$0.5 billion
Reform fund name	CAF I and CAF II (Jan 2013)	CAF (HCLS/ICLS)	Mobility Fund
Funding plan	Initial CAF I (transition from past USF to CAF fund) one-time support of up to $300 million plus frozen fund as of 2011 (obligated 4/1 Mbps buildout completed within three years); CAF II is five-year funding plan, based on forward-looking model (if incumbent) or competitive bidding if model results are rejected by ILEC; CAF II used exclusively for scalable broadband buildouts in areas substantially unserved by an unsubsidized competitor after 2014; after year 5, competitive bidding	Limitations on corporate operations expenses, capping per line funding at $250/line/month (affecting 18 carriers), and adoption of a Quantile Regression Analysis to limit funding for capital and operating high-cost loop support (HCLS); a QRA is expected to be used for calculating Interstate Common Line Support (ICLS); elimination of local switching support as a separate mechanism; full phase-in by 2014; reductions in funding if CAF recipient's user rates are below benchmark levels	Mobility Fund Phase I provides one-time support through a reverse auction, with a total budget of $300 million, plus an additional $50 million for one-time support for Tribal lands. Phase II auction in 3Q13 with an annual budget of $500 million for 2014 and afterwards; five-year gradual elimination of identical support rule
Targets	4 Mbps/1 Mbps CAF II service with 85% coverage of specified state study-area census blocks by year 3 and 100% by year 5; in select areas, required to have 6 Mbps /1.5 Mbps	To provide flexibility, upon the customers' request, carriers must provide 4/1 Mbps service capable of VoIP services; with no other buildout or speed requirements except that the network should be scalable	Unserved areas identified by census block and assigned to carriers through reverse auctions; threshold levels for speeds and buildouts depending on 3G or 4G standards, but requirements for buildout, latency, reporting apply

Source: Balhoff & Williams, LLC; Transformation Order.

In Table 1, we summarize the FCC's plan for support funds, as outlined in the Transformation Order. We will explain that aggregate funding is almost certainly insufficient for the wireline networks that provide new and more costly broadband services in all high-cost areas.

Price-cap carriers

The Transformation Order assigns up to $1.8 billion annually to customer networks through price-cap carriers that agree to specific new customer service obligations in high-cost areas. The positive news is that the total allocated annual funds represent a potential increase of about $700 million from $1.08 billion provided through the pre-Transformation Order funding.

However, the previous USF did not allocate sufficient funding to so-called non-rural carriers, as the FCC implicitly affirmed when it highlighted that 83% of 18 million homes without access to residential fixed broadband at or above the FCC's broadband speed benchmark were in areas served by price-cap carriers.[36] Notably, the historical failure to deploy network occurred in the service areas of very large carriers that did not have sufficient universal service funding or adequate implicit funding through ICC. The point was that large

[35] Transformation Order, ¶ 15.
[36] Transformation Order, ¶ 21.

carriers could not and did not make up the funding deficit in the past, and this was the pattern even before the new charge to deploy IP broadband-capable networks. The FCC, therefore, provides the evidence of the low/no investment scenario that transpires when insufficient funding is available to carriers, whatever their size.

Large carriers could not and did not make up the funding deficit in the past, and this was the pattern even before the new charge to deploy IP broadband-capable networks. The FCC, therefore, provides the evidence of what transpires when insufficient funding is available to carriers, whatever their size.

The first phase of CAF Incremental Support—part of the transition to CAF II—illustrates what is likely to occur if CAF II funding is insufficient. In the first phase, the FCC proposed one-time $775 per-line funding for networks built by price-cap carriers in designated high-cost areas, but sharply limited where the support could be used. After evaluating the obligations and funds allocated, the price-cap carriers accepted only $115 million, and rejected almost two-thirds of the CAF I monies because the CAF support was judged to be unrealistic and uneconomic for the eligible areas.[37] Seeking to reverse the shortcomings of the first round, the FCC released a new Order on May 22, 2013, to provide a second round of CAF I Incremental Support to augment one-time funding; it is still too early to know whether and how much the carriers will draw down these one-time funds.[38]

In preparation for the second phase affecting customers served by price-cap carriers, the FCC released in December 2012 an initial version of a forward-looking model for CAF II. The model is a key element of the Transformation Order's mandate to "use a combination of a forward-looking broadband cost model and competitive bidding to efficiently support deployment of networks providing both voice and broadband service for five years."[39] The model will identify high-cost areas that require ongoing support and a proposed level of support for a five-year period. The FCC signaled that it would impose "rigorous broadband service requirements" with "financial consequences in the event of non- or under-performance."[40] If the carrier does

[37] Transformation Order, ¶ 22: "Any carrier electing to receive the additional support will be required to deploy broadband and offer service that satisfies our new public interest obligations to an unserved location for every $775 in incremental support. Specifically, carriers that elect to receive this additional support must provide broadband with actual speeds of at least 4 Mbps downstream and 1 Mbps upstream, with latency suitable for real-time applications and services such as VoIP, and with monthly usage capacity reasonably comparable to that of residential terrestrial fixed broadband offerings in urban areas." See Fierce Telecom, FCC Seeks Help to Revamp the Connect America Fund, January 3, 2013, available at http://www.fiercetelecom.com/story/fcc-seeks-help-revamp-connect-america-fund/2013-01-03. Only $115 million of the $300 million was accepted by the July 24, 2012 deadline, which means that approximately 148,000 new premises will be served compared with the 15.6 million Americans reported unserved by the FCC in regions served by large price-cap carriers. See Transformation Order, ¶ 28; the FCC reported 18.8 million Americans unserved, more than 83% of which were in regions served by large price-cap carriers (83% x 18.8 million = 15.6 million). Frontier, which might be considered a special case, accepted $72 million, which was almost two-thirds of all of the accepted one-time support (the company is upgrading recently-acquired Verizon telephone lines in 14 states); CenturyLink accepted $32 million of the $90 million offered; Windstream accepted $653,000 of the $60.4 million offered; FairPoint accepted $2 million of the $4.8 million offered. AT&T rejected all of the $47.8 million it was offered, while Verizon declined the proposed $19.7 million.

[38] FCC, *In the Matter of Connect America Fund*, WC Docket No. 10-90, Released May 22, 2013, available at http://www.fcc.gov/document/commission-adopts-connect-america-phase-i-second-round-funding.

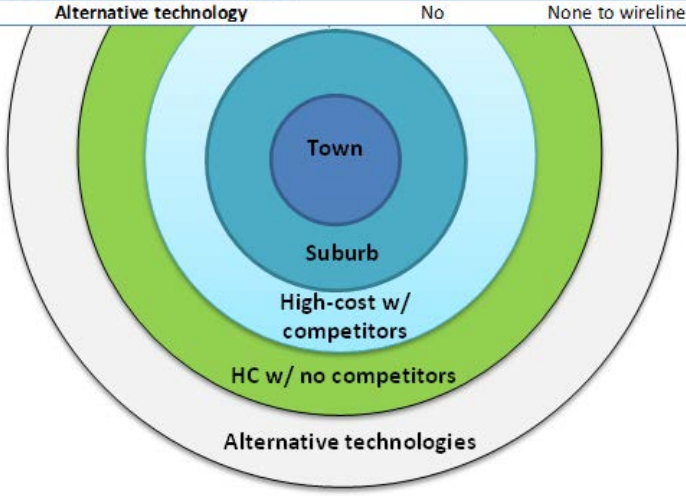
[39] Transformation Order, ¶ 23; see WC Docket Nos. 10-90, 05-337, released December 11, 2012, available at http://www.fcc.gov/document/availability-version-one-connect-america-fund-phase-ii-cost-model .

[40] Transformation Order, ¶ 24.

not accept the obligation, the FCC proposes to engage in competitive bidding for the network services in the eligible areas.

Figure 2: CAF II for customers of price-cap companies

	Economic	High-cost funding
Town	Yes	No
Suburb	Yes	No
High-cost region w/ at least one customer using a competitor service	No	No
High-cost region w/ no competitor	No	Yes
Alternative technology	No	None to wireline



Source: Balhoff & Williams, LLC.

At this time, it is not possible to assess the full impact of the CAF II model and the new obligations because the model is still being developed. The FCC released potential support amounts and the number of supported locations, by carrier, by state, but the data are illustrative at this time.[41] At the present, access to any version of the model requires parties to execute an acknowledgement of confidentiality, licensing, and nondisclosure documents released as attachments to the Third Supplemental Protective Order.

As noted earlier, we believe that it is aggressive to assume that the price-cap carriers will accept the obligations associated with CAF II funding in many regions. Our view is that the full $1.8 billion in funding will not be drawn down, and the effect will be the loss of *all* universal service funding for both terrestrial voice and broadband in many regions, unless some other carrier is willing to accept the costly obligations.

Figure 2 provides an illustration of our expectation based on discussions with companies in the sector. Assuming the town center is the first circle, there are a total of five circles in the illustration. The concentric circles depict towns or clusters of population, surrounded by suburbs, then high-cost regions with at least one customer using the service of a wireline competitor, then more remote high-cost regions, and finally very high-cost regions where alternative technologies such as satellite service are likely to be the required solution. The table at the top of the figure summarizes profiles for the service regions.

We estimate that the annual $1.8 billion in funding will not cover the total costs of approximately $5.8 billion to serve the three "outside" rings of the figure.

The most significant insight is that the former federal/state

[41] Federal Communications Commission, Wireline Competition Bureau Releases Illustrative Results From Connect America Cost Model Version 3.1.2, And Methodology Documentation, June 4, 2013; available at http://www.fcc.gov/document/release-cam-v312-illustrative-results-and-model-methodology. Surprisingly, the illustrative support appears to be premised on estimated costs divided by total premises *passed* which would understate the costs associated with providing service in high-cost regions because not all customers will elect to use broadband services within the next five years.

allocation of high-cost funding, which shared responsibility for all high-cost areas, is being modified as part of the transition to investment support of broadband. Instead of the historical shared responsibility for all high-cost areas, the FCC appears to be designing an arrangement whereby federal support will be dedicated to the funding gap for certain high-cost areas and not to other high-cost regions. This arrangement would leave the states to address the remaining unfunded mandate for high-cost areas. The figure depicts our assessment that only the green region (circle 4)—high-cost regions with no competitor presence at all—will be federally funded for terrestrial services. We cannot say how adequate the federal funds will be.

We estimate that the annual $1.8 billion in total federal funding, even if fully drawn down, will not cover the total costs of approximately $5.8 billion to serve the three "outside" rings of the figure (we estimate costs for each of these three rings will be about $2 billion annually).

It appears that the FCC is leaving the carriers and the states to fund—or reject to serve—the residual $4 billion associated with the other two rings. Additional uncertainty surrounding CAF II is concentrated on whether and where carriers will accept funding and then commit capital.

It seems possible that the uneconomic, completely non-competitive ring (the green ring, second from the outside) will be served, but it is also possible that a large proportion of the annual $1.8 billion will not be drawn down, as occurred when two-thirds of the funding in CAF I was rejected in 2012.[42]

A related important point should be made. It is also possible that, if the incumbent carriers reject the funding levels, there will not be sufficient bidders at auction to meet the new broadband obligations.[43] This view is based on our conversations with investors who fear that the FCC does not understand the challenges associated with serving high-cost areas. The concerns arise from several data points.

- As explained previously, for CAF I, the carriers judged, at least in 2012, the majority of the FCC's initial funding to be short of the obligations imposed by the Commission. The result was that the carriers' preliminary "commitments" were to invest based on a mere $115 million of the $300 million offered. It is our understanding that the carriers may choose to decline some of the $115 million as they further assess the obligations, although there are indications that the FCC may not allow reassessments.
- The FCC originally expected to begin funding CAF II by December 2012 with higher allocations in 2013. At this point, the FCC has not announced a definitive model nor does it have an announced set of obligations and eligible locations, although it appears that these are in process.
- The CAF II funding is for only five years, after which the FCC can reassign the obligation to an alternative carrier through an auction. However, funding for networks generally requires

It is also possible that, if the incumbent carriers reject the funding levels, there will not be sufficient bidders at auction to meet the new broadband obligations, based on our conversations with investors who believe that the FCC does not understand the challenges associated with serving high-cost areas.

[42] Again, the FCC released a new Order related to CAF I one-time funding on May 22, 2013. The Order provides some greater latitude to the carriers, but the effects, at best, are a short-term stimulus to building out unserved or underserved regions.

[43] In 2008, the FCC sponsored a failed auction of the so-called D-block public safety spectrum when investors apparently viewed the opportunity as unattractive; see Cecilia Kang, *FCC's Safety Spectrum May Not Get Buyer*, Washington Post Business, February 9, 2008, available at http://www.washingtonpost.com/wp-dyn/content/article/2008/02/08/AR2008020803594.html.

recovery over a longer horizon, as costs have typically been recovered over a period closer to 20 years. This disparity between funding and recovery mechanisms could cause the carriers to be more reluctant to accept the new obligations.

- Because the investment obligations could rise from 4 Mbps/1Mbps, according to the FCC, to 6 Mbps/ 1.5 Mbps, a rational carrier will assess a single network buildout so it will not have to return and upgrade the broadband plant. The analysis in the near term is likely to include assessing costs that assume the faster speeds, with the likelihood that the near-term CAF will not meet that higher cost threshold.

It is simply not possible at the present to know how much of the annual $1.8 billion will be accepted and then invested by the carriers. At the same time, there are concentric circles adjacent to the green circle where no terrestrial support for voice or broadband is likely to be provided, which creates a major funding gap for states to address. That is, federal universal service funding may be unavailable in very high-cost regions which may be left to be served by non-terrestrial technologies, such as satellite, and there may be other high-cost regions where a terrestrial "competitor" serves some minimal number of households or businesses out of an entire census block. Effectively, customers in these regions will be disadvantaged because previous funding would then be disallowed. Thus, there is a greater likelihood that both voice and broadband networks will be uneconomical to deploy and operate in extensive high-cost areas served by price-cap carriers. It will fall to states to fill the funding gap in these areas, or, if the states fail to fund support in those regions, customers will experience reduced service-levels and may ultimately lose access to voice and broadband altogether.

Rate-of-return carriers

About 726 rate-of-return carriers provide incumbent telecommunications service to about five percent of the United States and to more than 40% of the U.S. land mass.[44] The Transformation Order effectively caps the high-cost support provided through those carriers to customer networks in rural areas, setting the figure at about $2 billion, which was the level of support available in 2011. The service obligation rules are somewhat less stringent than for larger carriers, but the reform freezes the fund size in spite of new challenges in deploying broadband services.[45]

Additionally, the FCC has also decided to use a Quantile Regression Analysis (QRA), which, since 2012, is calculated annually to "estimate" appropriate funding levels for the rate-of-return carriers. The QRA has been widely criticized as it caps returns for certain carriers and reallocates funding to other carriers based on a highly controversial and demonstrably imprecise model.[46]

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[44] See footnote 12 *supra.*

[45] Transformation Order, ¶ 26: "Rate-of-return carriers receiving legacy universal service support, or CAF support to offset lost ICC revenues, must offer broadband service meeting initial CAF requirements, with actual speeds of at least 4 Mbps downstream and 1 Mbps upstream, upon their customers' reasonable request. Recognizing the economic challenges of extending service in the high-cost areas of the country served by rate-of-return carriers, this flexible approach does not require rate-of-return companies to extend service to customers absent such a request."

[46] See Vincent H. Wiemer and Michael J. Balhoff, Lessons from Rebuilding the FCC Quantile Regression Analysis, February 2013, available at http://www.balhoffwilliams.com/pdf/Lessons%20from%20Rebuilding%20the%20FCC%20Quantile%20Regression%20Analysis.pdf , p. 4: "Of the sixteen independent variables used in the QRA, fourteen appear to have meaningful problems. The notable problems include (i) the use of inaccurate or outdated data in the source databases; (ii) questionable or clearly flawed assumptions; (iii) weak or no cost causation which make the use of certain variables

Rate-of-return carriers also receive intercarrier payments that have amounted to about $1 billion annually, which, as the FCC explains, has provided an implicit support for their operations.[47] By 2020, terminating intercarrier revenues will be eliminated by virtue of the Transformation Order. The carriers might be able to raise consumer rates to offset some of the "lost" USF and intercarrier revenues, but the National Exchange Carrier Association (NECA) estimates that annual losses, including various factors such as ICC, for rate-of-return carriers will be $1 billion annually by 2020. Because there are few avoided costs, the effect will be a sharp reduction, possibly the majority, of cash flows for the rate-of-return carriers. The result, as will be explained later, is that the sharply declining revenues, in addition to the QRA, have injected significant uncertainty into the investment environment. The net effect will be to raise the costs of capital and chill investment.

Wireless carriers

The FCC has established a $500 million Mobility Fund for wireless carriers. Previously, the wireless carriers received $1.22 billion, but the pre-Transformation Order funding was assigned with virtually no reporting requirements or build-out obligations. The payments to wireless service providers had burgeoned as multiple companies—as high as 14 wireless "competitive" carriers—received funding for the same service area in spite of having no COLR duties. Further, the funding level was determined as "identical support" based on the ILEC's investment levels rather than any assessment of the wireless carriers' investment or lack of investment. The Transformation Order corrected this system introduced by the FCC a decade earlier.

In Phase I, the Commission proposed $300 million to fund, on a one-time basis, wireless services in uneconomic regions. The Commission allocated funds for one and only one wireless carrier in the supported regions, including certain protections against anti-competitive behaviors.[48] All of the funding was accepted in 2012.

The assignment of Mobility Funds was made and will continue to be made through reverse auctions which identify the lowest bids to provide service in unserved regions. It is too early and the historical data are not available by which to assess the value of the new Mobility Fund.

problematic in a predictive model; (iv) obvious errors in the results the variables generate; (v) too few source-data points for statistical reliance; and (vi) obviously low predictive values."

[47] Transformation Order, ¶ 2.

[48] See, e.g., Transformation Order, ¶ 320.

II: The problem emerging for the states

A growing universal service problem is emerging for the states in the wake of the federal reforms of 2011. The FCC has capped universal service funding at $4.5 billion while making significant changes to the funding criteria, and has mandated that terminating intercarrier compensation payments will disappear over the next five to seven years. As explained above, while some rural high-cost areas will be better funded than before, many others will receive less federal support and others will receive no support at all for terrestrial voice and broadband. Therefore, states must adjust their approach to funding service in high-cost areas (which historically have accounted for up to 75% of the total funding need) or risk leaving thousands of communities and millions of households without adequate broadband and voice services.

A quantification of the lost support payments makes it apparent that the ongoing provision of critical telecommunications services to many high-cost, rural areas is in jeopardy. The question arises, therefore, about whether the states have assessed the challenges and are prepared, in a timely manner, to supplement the financial void affecting millions of customers. Do the states have a plan to identify likely challenges, potential costs, and policy alternatives? Will the states adopt new support mechanisms, ignore the crisis, or, through state reductions in USF, take actions that further accelerate the demise of universal service for many customers outside of denser, lower-cost service regions?

Predictable Implications of the Transformation Order Reforms

The Transformation Order ensured that wireless carriers would benefit financially from the reforms as would large long-distance carriers, which, by 2020, will no longer be required to pay for completing calls on other carriers' networks. However, the loss of support for incumbent local exchange carriers—with intercarrier payments being eliminated and new constraints on universal services—is stunning. As explained earlier, we estimate that between now and 2020, larger price-cap carriers should expect a possible reduction of 85%-90% in support revenues, with the potential for an offset of up to $1.8 billion annually for CAF II.[49] Again, our estimates are that, even with the full CAF II allocation, the funding available to price-cap carriers will fall far short—offering support for less than one-third—of the costs in meeting the obligations that the FCC will likely require. And, areas not covered by CAF II could suffer from insufficient or no terrestrial broadband or voice service.

The new reforms terminate the former USF, which may be replaced by funding for new and costly obligations. Our estimates are that the funding available to price-cap carriers will fall far short—offering support for less than one-third—of the costs in meeting the obligations that the FCC is proposing.

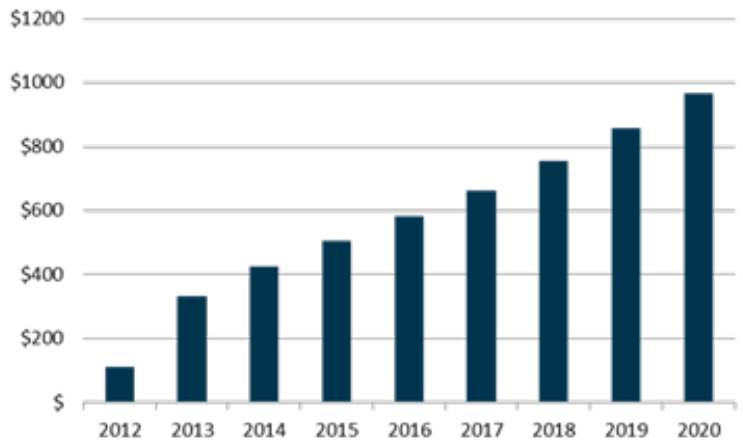
Excluding CAF II, by 2014, we estimate that the price-cap carriers will have to absorb reductions of investment and operating USF that total slightly more than $700 million in addition to another $500 million in

[49] As noted above, the price-cap carriers are AT&T, Alaska Communications Systems Group, CenturyLink, Cincinnati Bell, Consolidated Communications, FairPoint Communications, Frontier Communications, Hawaiian Telcom, Federated States of Micronesia Telecom, Puerto Rico Telephone, Virgin Islands Telephone, Verizon and Windstream , which collectively serve large parts of all but a few states and territories in the United States; see Transformation Order, ¶ 36. The exclusion of CAF II, as noted earlier, is not for the purpose of creating a stronger commentary, but because of the problem in defining how much of CAF II will be accepted by the carriers.

intercarrier compensation reductions.[50] The support reductions will grow over the next several years, further exposing the high-cost areas not covered by CAF II.

The smaller rural carriers also are expected to be impacted, as part of the emerging crisis. Figure 3 illustrates the NECA-estimated annual revenue losses for small rate-of-return carriers. The annual industry-wide loss by 2020 is expected to be approximately $1 billion annually, and the cumulative reduction through 2020 is $5.2 billion.

Figure 3: NECA estimated revenue losses at rate-of-return carriers



Source: National Exchange Carrier Association (2012)

Since telecom services require high upfront capital investments that are recovered over a number of years, there will be lesser and more sporadic investment in high-cost areas, due to the lower levels of support funding and increased uncertainty. In fact, today, there is compelling evidence of *decreased* investment, and there is no evidence anywhere to indicate *increased* investment in high-cost regions in the wake of the Transformation Order reforms.

The startling discovery is that rural investment loan activity is down sharply in the wake of the new reforms, both because the companies are gravely concerned about their ability to repay debt and because the lenders are more cautious in lending due to their judgments about industry fundamentals.

In conversations with the major lenders to the rural communications industry, the startling discovery is that rural investment loan activity for smaller carriers is down sharply in the wake of the new reforms, apparently because the companies are gravely concerned about their ability to repay debt and because the lenders are more cautious in lending due to their judgments about industry fundamentals. For example, CoBank, which has been a major lender to rural wireline companies, reports that it is making few loans, almost none of which are principally for infrastructure improvements.[51] Another important lender, the Rural Telephone Finance Cooperative in Herndon, Virginia, corroborates CoBank's comments.[52]

[50] Data derived from price-cap company filings at the FCC, available at http://fjallfoss.fcc.gov/cgi-bin/ws.exe/prod/ccb/etfs/webpublic/search.hts; the intercarrier compensation losses assume 100% loss of terminating charges.
[51] January 23, 2013, conversation between Michael J. Balhoff and Robert F. West, CoBank, Senior Vice President, Division Manager.
[52] Conversations between Michael J. Balhoff and Lawrence Zawalick, Senior Vice President of Affiliate Organizations at National Rural Utilities Cooperative Finance Corp.

CoBank's Division Manager for telecommunications wrote a particularly direct commentary to the FCC:

> "CoBank is concerned about the negative impact the Transformation Order (the Order) is having on investment in rural broadband. The various caps and limitations on universal service funding and inter-carrier compensation, especially for rate-of-return carriers, are making it increasingly difficult for us to extend credit for the purpose of deploying ubiquitous rural broadband networks. . . . It is a stated objective of the Commission to support the deployment of rural broadband. Unfortunately, we view many of the provisions of the Order, especially the use of QRA, as antithetical to that goal. Affordable broadband for all Americans cannot be achieved without increasing the funding spent to support broadband deployment. The rate-of-return regulated Rural Local Exchange Carrier has historically done the lion's share of the work in deploying truly robust broadband in rural America. Instead of trying to find ways to cut and curtail support to these carriers, we continue to believe the Commission's goals would be better served in finding ways to help these carriers continue to succeed in their decades-long mission of bringing modern telecommunications services to their subscribers."[53]

Additionally, the Rural Utilities Service (RUS), which is part of the Department of Agriculture, has $4.7 billion in principal outstanding for telecom infrastructure loans and the Farm Bill Broadband Loan Program.

The RUS has been able to place its full loan portfolio every year that we have been able to track . . . until 2012 when borrowers drew down only 11.6% of the $690 million that was available. Further, of another $736 million available for RUS broadband loans, only 9.4% ($68.9 million) was drawn down in 2012.

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Confirming this commentary, the National Telecommunications Cooperative Association (NTCA) conducted a 2013 inquiry among its membership, which are small rural telecommunications companies (about half of which are cooperatives); the survey found that 69% of the respondent carriers were postponing or

[53] Letter of Robert F. West to FCC, Marlene H. Dortch, May 18, 2012, available at https://prodnet.www.neca.org/publicationsdocs/wwpdf/0511cobank.pdf.

[54] The United States Department of Agriculture / Rural Development, "The Telecommunications Program," presentation by RUS Deputy Administrator Jessica Zufolo to the National Association of Regulatory Utility Commissioners, Washington, DC, February 2, 2013, slide 5. See, also, "Vilsack, RUS Meet With Genachowski To Discuss The Need For More Changes In Implementation Of USF-ICC Transformation Order: Warn Of Unintended Consequences And Need For USF-ICC Support To Be Sufficient and Predictable," Independent Telecom Report, Volume 12, Issue 3 (February 18, 2013), pp. 3-5); "In the meeting [with FCC Chairman Julius Genachowski and his staff], [Secretary Vilsack and] USDA officials noted that demands for RUS loans dropped dramatically in 2012. RUS reported "demand" for only 37 percent of the funds that were actually appropriated by Congress. USDA cited the reductions in USF and ICC that will result from the implementation of the FCC's Transformation Order as the reason for the decline in loan applications. Rural carrier advocates have noted that the reduced loan activity reflects the adverse impact of the FCC Order on infrastructure investment and rural community economic development." The figures were also reported in an ex parte filed at the FCC on February 15, 2013. The reconciliation is that the "demand" for loans was reported as 37% according to Secretary Vilsack, but the RUS actually "obligated" the amounts reported by Ms. Zufolo.

cancelling "fixed network upgrades as a result of the uncertainty surrounding [the Transformation Order]."[55] The clear message is that investors—corporations or debt or equity investors—are not likely to increase capital investments in a time of sharply lower cost support and apparently unfocused public policy.

Are There Clear Winners and Losers?

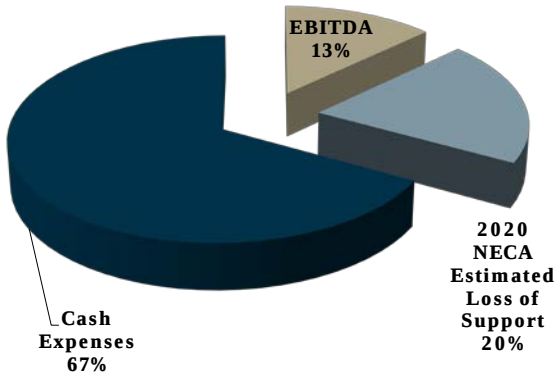
The FCC has stated that customers in denser regions will benefit from reduced prices and, in the future, customers in the CAF II funded areas will see improved and more sustainable access to broadband and voice services. In the near term, however, the biggest winners are the large diversified carriers, such as AT&T and Verizon. Because those two carriers account for nearly 50% of the long-distance market share in the U.S. and serve nearly two-thirds of the wireless subscribers, they are net beneficiaries of the reforms with cost savings larger than revenue losses.[56] Sprint and T-Mobile are also clear beneficiaries as they have no local access revenues to lose but will benefit from lower intercarrier charges paid to local telecommunications companies.

The winners are the large diversified carriers, such as AT&T and Verizon. Customers in many high-cost regions, however, will be the ultimate losers, as traditional investment-focused support is reduced going forward.

Customers in many high-cost regions will be the ultimate losers, as traditional investment-focused support is reduced going forward. By 2020, the price-cap carriers will no longer have access to significant levels of the support funding previously dedicated to investment in many of their high-cost areas. By the same point in time, we estimate that rate-of-return rural carriers will lose an estimated one-third of today's federally-regulated intercarrier compensation (and related embedded support monies) and USF explicit support.

At the same time, it is important to note that the revenue loss, as grave as it is, *understates* the financial problem. For large and small carriers, there are relatively few avoided costs when USF is reduced or intercarrier revenues disappear. What this means is that the cash-flow effects will be worse, and likely *far worse*, proportionately than the revenue effects. As explained below, for carriers with long-distance and wireless operations—such as AT&T or Verizon—the result is uniformly positive. For CenturyLink, Windstream, FairPoint, Frontier and Consolidated Communications, there is some benefit from the intercarrier compensation reforms, but the overall effects of the new regime are still significantly negative outside of the areas that will be funded by CAF II.

Figure 4: Estimated loss of cash flows for rural carriers



Source: Balhoff & Williams, LLC projections.

Illustrating the cash-flow problem, the smaller

[55] National Telecommunications Cooperative Association, "Survey: FCC USF/ICC Impacts: Summary of Results," February 2013, available at www.ntca.org.
[56] See, FCC, 2010 Trends in Telephone Service, Chart 9-2, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf); also Columbia Institute for Tele-Information, Long Distance Market Share, 2011, available at http://www4.gsb.columbia.edu/filemgr?file_id=739256.

carriers are expected to have a support-related *revenue* loss of 35%. However, with no cost avoidance related to the reform-based revenue reductions, we estimate, as depicted in Figure 4, that the *operating cash flow* margins of the "typical" rural, rate-of-return carriers will fall to around 13% of revenues (from about 33%) if they cannot make up the difference from increased customer fees. Even then, the funding will not be available for the high-cost areas they serve as internal company cross-support no longer is feasible. The effect is a contraction in operating cash flow margins of up to 62% (in the case of no increase in customer fees).[57] After paying interest charges—typically 4%-6% of today's carrier revenues (the percentage loss will be greater as the revenue base declines)—we project minimal residual cash flow available for capital investment and repayment of debts.[58] Our analysis suggests that service will falter in certain regions or significant incremental costs will have to be borne by customers, unless new sustainable and predictable support revenues are made available.

With no cost avoidance related to the reform-based revenue reductions, we estimate that the operating cash flow margins of the "typical" rural, rate-of-return carriers will fall to around 13% of revenues (from about 33%). The effect is a contraction in operating cash flow margins of 62%. After paying interest charges—typically 4%-6% of today's carrier revenues—we project minimal residual cash flow available for capital investment and repayment of debts

Thus, the cost reductions, which the FCC projects as $1.5 billion, in intercarrier compensation payments will be an effective transfer of wealth and investment away from the customer base previously supported in many rural and high-cost regions, even as others may benefit.[59] As such, the longstanding policy of universal service and the customers served in those regions through USF and support implicit in intercarrier compensation appear to be clear losers in the most recent federal reforms. Therefore, state responses are necessary to fill the gap and ensure universal availability of broadband and voice services.

Will Post-Reform Support be "Sufficient" to Facilitate Statutorily-Defined Universal Service?

The FCC's reductions in intercarrier payments, combined with pressures on support from the federal universal service fund, are being implemented, to the best of our knowledge, with no proof that the resulting lower cash flows will be sufficient for carriers to continue to serve in high-cost regions. In fact, data from past studies indicate just the opposite—that without critical support revenues, there will be no economic rationale or justification for carriers to continue to provide universally available advanced communications service to customers and communities in many high-cost areas.

Rural Task Force. Shortly after the passage of the Telecom Act, the FCC's Federal-State Joint Board on Universal Service (Joint Board) appointed a Rural Task Force (RTF) that included representatives from regulatory commissions, government agencies, consumer advocacy groups, cost consultants, competitive carriers, a long-distance company (AT&T) and small rural carriers.[60] The RTF assessed the challenges of

[57] Some rates increases might be adopted but carriers are currently reporting a concern that rate increases put pressures on rural customers, whose income levels are often low.
[58] See, for example, Letter to FCC from Robert F. West, CoBank, May 8, 2012, available at https://prodnet.www.neca.org/publicationsdocs/wwpdf/0511cobank.pdf
[59] Transformation Order, ¶ 14.
[60] The Rural Task Force was created by the Joint Board on Universal Service to study potential reforms; its appointed membership included a wide range of industry interests and experts: Chairman William R. Gillis, Commissioner, Washington Utilities and Transportation Commission; Robert Schoonmaker, Vice President, GVNW

providing telecommunications services in rural regions and published its consensus findings in several reports, including its "White Paper 2" in January 2000. The RTF's White Paper 2 highlighted the low-density, high-cost nature of 38% of the United States land area where there were approximately 13 households per square mile compared with 105 households per square mile in urban areas.[61] The RTF found significant cost factors that illustrate the differences between providing wired telecommunications services in urban and rural areas. We have not found any indication in the Transformation Order or from any commenter in the process who suggests any reasons to believe that the major cost factors have changed in any material way since the White Paper 2 study twelve years ago.[62] In that study, the RTF found . . .

- On average, plant specific expenses per loop were $180 for rural carriers compared to $97 per loop for non-rural carriers;
- Average rural carrier plant-specific expenses increase consistently as the number of lines served decreases, from approximately $110 per loop for carriers with more than 20,000 lines to $445 per loop for carriers with study areas having fewer than 500 lines;
- *Average* total plant investment per line ranges from $3,000 for rural carriers with the largest study areas to over $10,000 for rural carriers with the smallest study areas, and the investment costs per line for rural carriers can be as high as $40,500 line compared with non-rural carriers where the *range* of investment costs is $1,400 to $4,350;
- The range of total plant specific expenses per loop for rural carriers (up to $1,585) is substantially greater than for non-rural carriers ($38 to $163).[63]

Consulting, Inc.; Thomas Beard, President, National Phone Company; Carol Ann Bischoff, Executive Vice President and General Counsel, Competitive Telecommunications Association; Jack Brown, Management Consultant Golden West Telecommunications Cooperative, Inc.; David R. Conn, Vice President Law and Regulatory Affairs, McLeod USA, Inc.; Gene DeJordy, Executive Director: Regulatory Affairs, Western Wireless Corp.; Billy Jack Gregg, Director, West Virginia Consumer Advocate Division; Joel Lubin, Regulatory VP-Law and Public Policy, AT&T; Joan Mandeville, Assistant Manager, Blackfoot Telephone Company; Christopher McLean, Deputy Administrator, Rural Utilities Service, USDA; Gwen Moore, President, GEM Communications; Jack Rhyner, President and CEO, Telalaska; Jack Rose; David Sharp, President and CEO, Virgin Islands Telephone Corp.; Stephen G. Ward, Public Advocate, State of Maine Public Advocate Office. The RTF relied upon the professional support services of the National Exchange Carrier Association; The National Telecommunications and Information Administration--U.S. Department of Commerce; The Rural Utility Service--U.S. Department of Agriculture and The Rural Policy Research Institute and the University of Missouri Office of Social and Economic Data Analysis.

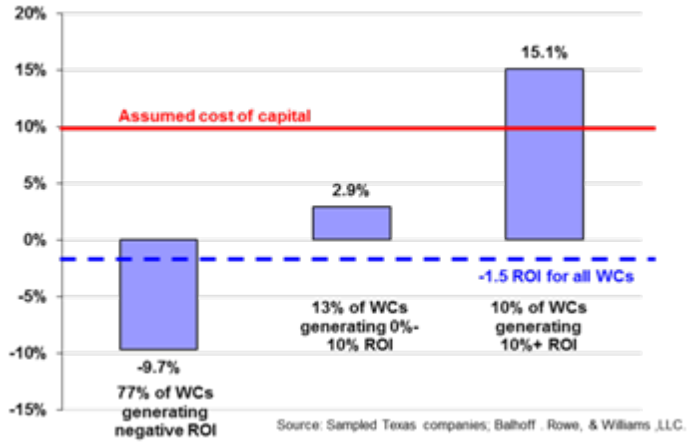
[61] Rural Task Force, White Paper 2, January 2000, pp. 7-14 (RTF White Paper); available at http://www.wutc.wa.gov/rtf/old/RTFPub_Backup20051020.nsf/e1b9e65978d9348b882567d2008318d3/4951d0c8d59b2d4d8825687000826423/$FILE/Rtfwp2.pdf

[62] Notably, the FCC is not proposing that wireless should replace wired services, and a case can be made that broadband consumer volumes will not be met at affordable rates using wireless networks.

[63] RTF White Paper, pp. 12-13.

Texas study of rural regions. In 2007, our firm—then Balhoff, Rowe & Williams—studied local telephone networks involving six carriers that served customers living in rural areas in Texas.[64] The six companies were all price-cap carriers, and included CenturyLink (then two separate companies—CenturyTel and Embarq), Windstream, and Consolidated Communications. The study evaluated the economics of service to 350,000 access lines, using confidential financial data, and found results consistent with the RTF findings published seven years earlier. More specifically, the report highlighted that, in spite of the "economies of scale" associated with relatively larger carriers, most of the rural service areas would likely not have wired communications services without universal service support because investment and operational costs were high for sparsely-populated regions. Figure 5 makes this point, as 77% of the wire centers in the Texas study generated, on average, a negative 9.7% return on investment, while 13% of the wire centers generated an average 2.9% return, which was insufficient to justify investment, and 10% of the wire centers generated at least a 10% return. The conclusion was that, without universal service support funding, 90% of the wire centers are candidates to lose service. We did not study the effect of a potential loss of intercarrier revenues, but it is clear that the financial reality will be much worse than the results outlined above.

Figure 5: Texas study of wire centers



Our 2007 Texas study concluded that, without universal service support funding, 90% of the wire centers are candidates to lose service.

In addition, we were able to evaluate financial information of those price-cap carriers related to small rural communities ("town centers") and the more lightly-populated out-of-town areas. We also found that outside of the Texas rural towns, without universal service support, all of the lines generated negative returns (averaging a negative 7% return on investment). The percentage of total lines that generated negative returns, in this case, was 52% of those studied. Thus, the uneconomic lines in the study, without universal service support *but with intercarrier compensation revenues* (which are now being eliminated), totaled an estimated 70% of those studied—52% outside-of-town plus 18% of total lines in small towns where there was a negative return. To state the obvious, the loss of intercarrier compensation payments makes the business case even more difficult.

Clarifying the States' Universal Service Conundrum

In the wake of the federal reforms resulting from the Transformation Order, the fundamental insights for state policymakers who believe universal service remains a critical policy objective are . . .

[64] Michael J. Balhoff, Robert C. Rowe, and Bradley P. Williams, Universal Service Funding: Realities of Serving Telecom Customers in High-Cost Regions, Summer 2007, available at http://www.balhoffrowe.com/pdf/USF%20Funding%20Realities%20of%20Serving%20Telecom%20Customers%20in%20High%20Cost%20Regions%207-9-07.pdf

- Terrestrial services in a significant percentage of unserved and underserved areas are uneconomic in the absence of sufficient explicit and implicit universal service support funding; significantly, wireless services do not appear to be a reasonable substitute, both because of insufficient data rates that are not comparable to wired services in urban areas and, most important, because of prohibitively higher volume-based fees as explained above in this White Paper;
  - Rational businesses and investors will not commit capital to build or maintain a network for which there is no acceptable standalone business case without sufficient supplemental support funding;
  - It is implausible—and likely confiscatory—to expect any company to accept an uneconomic responsibility that is driven by government policy as opposed to sound business principles;

It is implausible—and likely confiscatory—to expect any company to accept an uneconomic responsibility that is driven by government policy as opposed to sound business principles.

- Universal service support provided for serving customers in high-cost regions does not, as a rule, create outsized returns for carriers, but provides monies necessary to offset high investment and operating costs; and
- The new 2011 universal service goals—in attempting to expand deployment of broadband services—may result in some investment savings because of the change from circuit-switched to IP networks; however, the overall loop and electronics are generally more expensive as plant is upgraded, the life of the plant (electronics) is shorter, and additional investment is required as bandwidth demands continue to increase.

As a result, by sharply cutting rural-serving carrier cash flows, the Transformation Order appears to have shifted the obligation to the states to decide whether universal service is sufficiently important for the states' economic well-being that there should be supplemental replacement support to make service to many high-cost regions economically justifiable.

III. State assessment of policy options

What should state policymakers do in light of universal service goals and the potential financial shortfalls resulting from the Transformation Order reforms?

Urgency of the state analysis

The states should understand the urgency. The FCC is working on a model for CAF II funding and will likely issue an order at the end of this year or possibly early next year. In that order, the FCC may start a 120-day clock for the carriers to accept or reject CAF II funding. If the costs of the obligations exceed the federal support, as is likely in many areas or possibly in most regions, the carriers will reject the support, as occurred in 2012 when nearly two-thirds of the CAF one-time funding was rejected. Then the carriers will continue to receive frozen CAF I funding until the FCC is able to hold reverse auctions to determine if there are companies willing to accept the responsibility for serving the high-cost areas.

We cannot say strongly enough that the states have a very short fuse. They cannot wait until the FCC issues its CAF II Order to begin their analyses because 120 days will be too short. Further, the states will not want to wait until the carriers reject the funding, because the states are at risk to lose critical federal support.

The responsible answer is that the states must begin immediately to understand the policy issues, the economic problems, and the social risks associated with the choices that will have to be made in the next months.

The FCC will then sponsor "reverse" auctions to determine which carriers might accept the new obligations at the lowest cost. We cannot know what will occur, but we understand that many telecommunications companies are skeptical of the uncertain new regulatory environment. The indications are that most high-cost regions are at risk because carriers will not accept the new obligations unless the fund size is larger.

We assume that many of the states will want their rural residents to have broadband services because of the critical social and economic benefits, as well as the importance of a reliable voice system. We also assume that the states may be open to supplementing federal funds, if those funds prove insufficient.

If we understand this correctly, we cannot say strongly enough that the states have a very short fuse. They cannot wait until the FCC issues its CAF II Order to begin their analyses because 120 days will be too short. Further, the states will not want to wait until the carriers reject the funding, because the states are at risk to lose critical federal support.

The responsible answer is that the states must begin *immediately* to understand the policy issues, the economic problems, and the social risks associated with the choices that will have to be made in the next months. Governors, legislatures and commissions should have a clear understanding of the challenges and the possibility of a failure in the partnership involving carriers, new federal support systems and state support.

Perspective of the National Regulatory Research Institute

The challenge for state legislators and regulatory commissions is to understand and carefully define the goals, as well as the costs, benefits, risks and alternative mechanisms in support of universal service in their states.

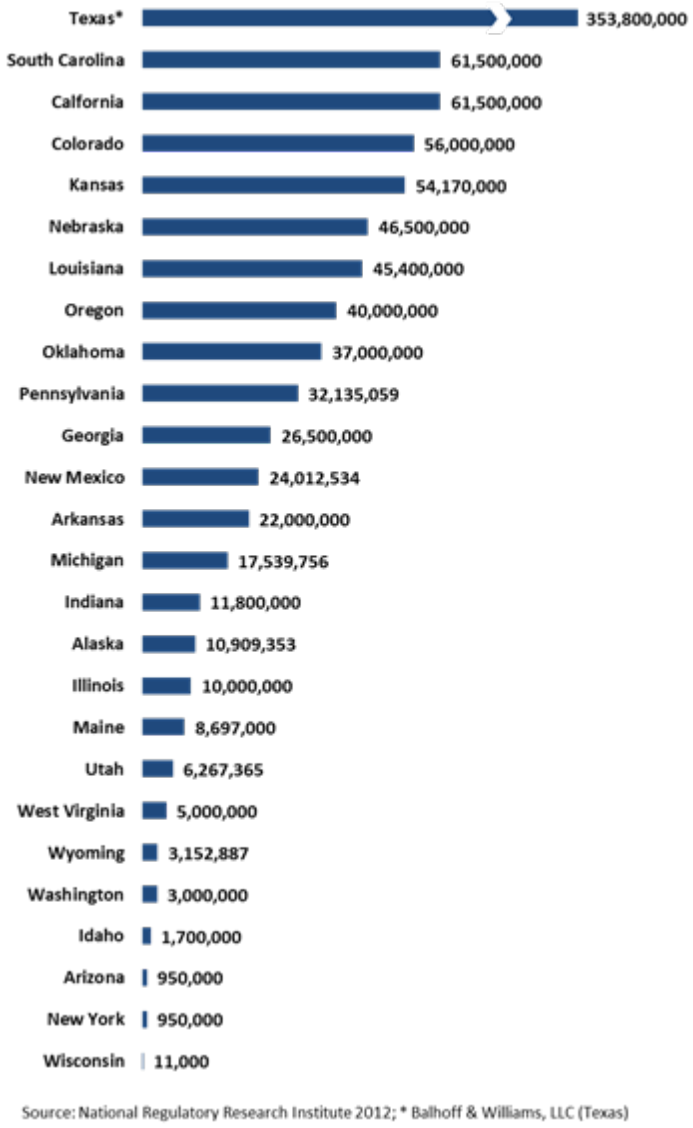
On the first page of its recent USF study, the National Regulatory Research Institute (NRRI) was direct in asserting how important it has become for the states to review state support for universal service.

> "The Federal USF provides monies to wireline and wireless carriers to defray the increased cost of providing service to customers in high-cost, primarily rural, areas of the state. This fund is supplemented in many states by state funds that provide additional monies to carriers to support service in these areas. *The design of the state funds and level of funding provided is particularly critical given the changes to the Federal USF and ICC structure made by the FCC's recent [Transformation] Order. In some states, this order reduces carrier support for high-cost areas, both through reductions in federal USF support and through anticipated lost revenues from intrastate ICC rate reductions, and could result in the states making up the shortfall.*"[65] (Emphasis added.)

The issues are complex and are apparently under review in multiple states. The NRRI report provides some helpful initial data.

As illustrated in Figure 6, today twenty-six

Figure 6: High-cost funding in the states



Source: National Regulatory Research Institute 2012; * Balhoff & Williams, LLC (Texas)

[65] Sherry Lichtenberg, Ph.D., "Survey of State Universal Service Funds 2012," National Regulatory Research Institute, Report No. 12-10, July 2012, Silver Spring, MD, (hereafter NRRI Survey), available at http://www.nrri.org/research-papers/-/document_library_display/3stN/view/0/7204?_110_INSTANCE_3stN_redirect=http://www.nrri.org/web/guest/home;jsessionid=8E2BAE7FB0E38281B29FBEC242C2DB85?p_p_id=nrrilatestresearch_WAR_nrrilatestresearchportlet_INSTANCE_F9Le&p_p_lifecycle=0&p_p_state=normal&p_p_mode=view&p_p_col_id=column-2&p_p_col_pos=2&p_p_col_count=5, p. 1.

states sponsor universal service funds for high-cost regions, and one state, Vermont, is in the process of initiating a universal service program. NRRI also reports that seven of the states with funds are evaluating their programs.[66]

Of the states that do not have universal service funding to support investment in high-cost regions, it is noteworthy that seven are relatively more densely-populated and have few incumbent local exchange carriers. In six of those states—Maryland, Delaware, Rhode Island, Massachusetts, Connecticut, and Hawaii—and the District of Columbia, more than 98% of the lines are covered by one dominant incumbent, and in one state, New Jersey, the largest carrier covers more than 96% of the incumbent lines. With the exception of Hawaii, the other highly-concentrated states are all served primarily by Verizon or AT&T which are net payers into the Federal universal service funds (and presumably would not want to pay into a state universal service fund).[67] If we exclude those seven states and Vermont, 62% of the U.S. states provide high-cost funding (defined as high-cost funds, broadband funds or access replacement). Only six states have no funding of any kind (no high-cost funding, Lifeline/Linkup, Schools and Libraries, Telecom Access Equipment, Relay, Telemedicine, E911, etc.) The states with no funding of any kind today are Alabama, Delaware, Massachusetts, Montana, New Jersey and Tennessee.

NRRI: "The design of the state funds and level of funding provided is particularly critical given the changes to the Federal USF and ICC structure made by the FCC's recent [Transformation] Order. In some states, this order reduces carrier support for high-cost areas, both through reductions in federal USF support and through anticipated lost revenues from intrastate ICC rate reductions, and could result in the states making up the shortfall."

NRRI recommends that states use the NRRI study to benchmark USF support against other regions, to aid in considering the implementation of a state universal service fund, or to help determine whether and under what circumstances incremental support funding might be adopted. The rationale is consistent with the data in this White Paper—universal availability of advanced communications networks remains an important national goal that should be assessed in light of the recent federal reforms. As a result, states increasingly will need to assess whether, in order to maintain a credible universal service policy, supplemental support is required to offset the reduced federal support funding.

Clarification of universal service policy

States should recognize that there is an affirmative and consistent goal related to universal service—comparable telecommunications services for comparable rates in all regions of the country in order to achieve economic and social purposes. It is noteworthy that the Department of Agriculture has emphasized the economic importance of broadband services, including services in high-cost regions.[68]

We also provide at the end of this study a side-bar entitled "Criticisms of Universal Service." That brief commentary highlights that certain opponents to universal service have, in our opinion, distorted the debate, particularly in state legislatures, by the introduction of pejorative terminology for universal service that derives

[66] NRRI Survey, pp. 3-5.
[67] States in which one dominant incumbent carrier accounts for at least 98% of the incumbent lines in the state are Rhode Island, Delaware, Maryland, Massachusetts, and New Jersey, as well as the District of Columbia, all served by Verizon.
[68] See footnote 9, *supra*.

from concepts not intended by the policymakers. In the critics' parlance, universal service funding is sometimes referred to as a "tax" or a "subsidy" or an "anti-competitive" benefit for soon-to-be-obsolete technologies. The terminology—which is inconsistent with policy and reality—redirects the conversation away from established law and the FCC's stated goal of universal availability of communications services in support of "economic growth, global competitiveness, and civic life" to a funding mechanism that, by the critics' implication, supports inefficient companies or redistributes wealth in a way that distorts competition. Of course, the policy is not to support companies, but to provide services to customers in high-cost areas. Further, the policy is not intended to redistribute wealth but to generate social benefits and economic growth that have wide-ranging positive effects. And, finally, the goal is not to invest in outdated technologies but to assure that modern technologies are more widely available.

It is important to assess the policy more carefully and honestly, despite the rhetoric of the opponents, to recognize that, from the beginning, universal service was, and arguably still is, an investment in national network services in which all parties participate.

It is important to assess the states' policy more carefully and honestly, setting aside the rhetoric, to recognize that, from the beginning, universal service was, and arguably still is, an investment in national network services in which all parties participate.[69] The foundational theory was that all parties benefit economically from a better and more robust nationwide network. This means that payment for network services is sometimes marginally higher in less-costly areas to assure that the overall network is strong across the nation or across a state. The original conceptual theory of "network externalities" was simpler when the network was monopoly-based throughout most of the last century, when carriers were expected to manage the economic cross-funding. Today, it is more complicated but no less important.

Still, the Congressional mandate and the FCC's stated policy are clear. While supporting competition where possible, there is still a goal to create a national telecommunications infrastructure, including in uneconomic regions, and to assure that all parties support such a goal. Policymakers usually argue that payment for this ubiquitous network is not a tax nor is it a subsidy, which are redistributions of funds. Rather, USF is a mechanism through which users of the network services that reach across the entire country actually pay for the costs of that comprehensive, interconnected network—common costs that are higher for

USF is a mechanism through which users of the network services that reach across the entire country actually pay for the costs of that comprehensive, interconnected network—common costs that are higher for networks in certain regions than in others.

[69] See, e.g., Steve Parsons and James Bixby, *Universal Service in the United States: A Focus on Mobile Communications*, 2010; available at http://www.law.indiana.edu/fclj/pubs/v62/no1/10-PARSONS_FINAL.pdf. The authors argue for competitive neutrality, but they note the long-standing logic of universal service based on the value of the integrated network; see pp. 134-135: "It is well known in telecommunications economics and the economics of networks, that the demand for telecommunications services is different from the demand for traditional products and services, like groceries, automobiles, or dry cleaning. A telecommunications customer's demand will depend, in part, on factors that are external to the customer's decision to purchase. Generally, there are two types of telecommunications positive externalities (also called, or closely related to, direct network effects or bandwagon effects). These externalities are (1) network externalities where the value of network subscription increases with the number of subscribers on a network or a set of interconnected networks and (2) call or use externalities, which recognize that, for most calls, one party obtains value from the call but generally does not pay for the call. It is also useful to recognize that the value of subscription is derived from the value customers expect to obtain from the calls they will make."

networks in certain regions than in others.

With federal support declining and shifting to selected locations, state legislators and other policymakers must evaluate as soon as possible whether economic and social welfare are improved or impaired when citizens in urban communities have superior services at lower prices compared with those in rural regions. As noted above, the Department of Agriculture study raises important economic questions about whether a state is in a superior or weakened position when citizens of rural regions are left without some semblance of a comparable telecommunications network.[70] The theory of network externalities has assumed that the value of the network to *all* subscribers is greater if there are more people on the network with the capabilities to support commerce and social exchanges.[71] Historical policy has endorsed the concept of an advanced network available for the benefit of all citizens, with adequate support to enable networks to serve uneconomic, high-cost regions.

Assessment of costs, benefits and risks

Policymakers at the state level should understand the financial urgency related to the universal service challenge in telecommunications. Because the federal reforms are in the process of unfolding, state or regional commissions should be focused on understanding the impacts, developing financial options, and arriving at appropriate solutions regarding universal service.

The Department of Agriculture study raises important economic questions about whether a state is in a superior or weakened position when citizens of rural regions are left without some semblance of a comparable telecommunications network.

Specifically, the states should assess immediately what it actually costs to provide broadband telecommunications services, particularly in more vulnerable high-cost regions that may or may not be funded by CAF II. This will require consultation with companies, including incumbent and competitive communications providers, about what the business model for providing service in high-cost looks like now or should look like. It may be most appropriate to engage in town hall sessions with customers and other policymakers to understand the expectations going forward regarding such issues as quality of service, affordable customer rates, acceptable broadband speeds, etc. The fundamental financial question is about the realistic revenue and cost projections for providing service in unserved / underserved areas, so that legislators and commissions can better understand whether there will be problems in achieving the policy goal of universal availability of basic voice/911 and advanced communications services. Based on an improved perspective regarding the financial challenges and opportunities in serving high-cost areas, policymakers should have a clear-eyed view about whether economically rational companies and investors will invest scarce capital and operating resources to provide services in these areas.

What will happen if the telecommunications networks are allowed to fail in rural regions? What happens to the economic base, the schools, the health care institutions, the public safety organizations, the emergency management systems, the social programs, and the wireless providers that require access to a landline network for backhaul?

It is our opinion that a state's process should be completed in time to work constructively with carriers at the time the CAF II support is made available later this year. The goal is to understand the policy and economic risks so that the state is ready

[70] See footnote 9, *supra*.
[71] See footnote 69, *supra*.

to assess the CAF II challenges and opportunities. Such a state evaluation is not trivial, and will require focus and aggressive action.

A related question for policymakers is what will happen if the telecommunications networks are allowed to fail in rural regions? What happens to the economic base, the schools, the health care institutions, the public safety organizations, the emergency management systems, the social programs, and the wireless providers that require access to a terrestrial network for backhaul? Is it sound policy to assume that institutions and communities in higher-cost regions should pay more than their urban counterparts for less robust services? What are the benefits that flow from assuring adequate financial incentives for the deployment and operation of advanced telecommunications networks in rural communities so that there are robust statewide networks? And what is likely to occur to the terrestrial voice and 911 networks if all support is eliminated?

Summary

This White Paper attempts to sharpen the focus of states on a rapidly emerging and urgent set of challenges. Federal reforms of universal service and intercarrier compensation have shifted the focus of telecommunications services away from narrowband voice and toward broadband data services. The reforms also have migrated to the states many of the financial challenges related to providing advanced telecommunications services in many uneconomic-to-serve regions. States that wish to encourage and maintain universal access to voice and broadband services, therefore, will have to understand what is occurring related to support funding, as well as the policy issues when federal support is insufficient, and what realistic actions can be taken if universal service policy is to survive. The time is very short for those analyses, particularly if the states wish to partner with carriers and take advantage of the federal support programs.

Appendices

Biographies

Michael J. Balhoff, CFA, is a Senior Partner and co-founder of Charlesmead Advisors, LLC, and is Managing Partner at Balhoff & Williams, LLC, a professional services firm that provides financial-regulatory consulting and advisory services to companies, investors and policymakers in the communications and energy industries. Before founding Charlesmead Advisors and the predecessor firm to Balhoff & Williams, Mr. Balhoff headed the Technology and Telecommunications Equity Research Group at Legg Mason and, in the final seven of his sixteen years as a senior analyst at Legg Mason, he covered equities in the incumbent local exchange carrier industry. Mr. Balhoff has been named in six annual awards as a Wall Street Journal All-Star Analyst for his recommendations on the Telecommunications industry. His coverage of telecommunications, and especially rural telecommunications, was named by Institutional Investor magazine as the top telecommunications boutique in the country in 2003. Mr. Balhoff has four masters degrees and a doctorate, and is a Chartered Financial Analyst and a member of the Baltimore Security Analysts Society.

Bradley P. Williams is a Senior Partner and co-founder of Charlesmead Advisors, LLC and also is a Partner at Balhoff & Williams, LLC. Mr. Williams joined the predecessor firm to Balhoff & Williams in 2005 and became a Partner at Balhoff, Rowe & Williams in 2007. Previously, Mr. Williams was a member of the Strategic Planning & Business Development group at Lowe's Companies Inc., the Fortune 50 home improvement retailer. Prior to joining Lowe's, Mr. Williams worked with Mr. Balhoff in the award-winning Telecommunications Equity Research Group at Legg Mason, focusing on incumbent and rural local exchange carriers. Prior to joining Legg Mason, Mr. Williams was a co-founder of eSprocket / Beachfire, a venture-backed company that evolved into one of the pioneers in mediation technology solutions for the financial services sector. Previously, he served as a financial executive for a holding company that integrated, through acquisitions, a significant regional freight rail network. Mr. Williams received his law degree from the University of North Carolina.

Criticisms of Universal Service

1. **Largest carriers argue that USF/ICC reforms are appropriate.** Some of the major carriers in the telecommunications industry—AT&T and Verizon—endorse the recent Federal reforms. They are net payers into universal service and intercarrier compensation. Some cable and stand-alone wireless carriers, including Sprint, have argued that the reforms did not go far enough, and that USF/intercarrier support is not necessary. Their advocacy is driven in large part by their net financial benefits.
2. **Wireless is a more efficient solution.** While new wireless technologies *can* provide broadband solutions, they have yet to be deployed widely in rural regions and will remain subject to capacity and interference challenges. Universal services are now defined as *broadband data* services. Today's wired data volumes average more than 10 GB/month, growing at estimated 30% -100% annual rates. Using AT&T's broadband rates, the typical household that uses 13 GB per month would pay approximately $165 monthly today, with overage charges at a rate of $15 per GB per month. Verizon's rates are lower, but the typical customer, if electing flat-rated plans, would be paying $120/month for up to 14 GB (overage $15 per GB). 4G wireless broadband services—if available—fail the statutory mandate of *comparable rates* and comparable services.
3. **USF is growing uncontrollably.** Funding for incumbent ILEC networks has been *declining* virtually every year since 2004. The fund growth is due to other policy factors, including wireless support, the federal commitment to schools and libraries, aid to low-income customers and rural health care.
4. **USF is an anti-competitive support**. The incumbent carriers that receive universal service support have policy-based obligations to serve high-cost regions that other "competitive" carriers do not serve. USF is and always has been a financial recovery for assuming an uneconomic obligation—investment and operating—borne by certain carriers.
5. **USF is a tax or a subsidy that is out of place in a competitive world**. Critics of USF have altered the statutory terminology/logic when they talk about a "tax" or a "subsidy." The traditional intention was that all parties who benefit from an integrated national network should pay for that nationwide service. There is no tax, subject to appropriations, but a payment for services across a network with significant common costs. Nor is USF a "subsidy" to aid parties or a troubled industry. It is a collaborative infrastructure commitment that is critical in assuring a broad range of economic and social benefits. Congress and the FCC have written about universal service in terms of a policy commitment that supports many benefits from which positive societal returns are generated.
6. **USF should not be used to pay dividends to shareholders.** Dividends are payments related to the use of equity capital. Meeting the cost of capital obligations is as critical as are wages for employees, payment of taxes, and maintenance of network. (See Balhoff & Williams, *Rural Carrier Dividend Perspectives*, available at www.balhoffwilliams.com).
7. **Carriers, and notably large carriers, should not be supported through universal service funding**. Universal service is about providing network-based services that are comparable in rural areas to those in urban centers, all at comparable rates. USF is not focused on carriers except as those carriers' investments are necessary to offer important services to customers. Further, large and small carriers report that, without support, they are unable to provide services economically in high-cost areas, which may be the reason that Verizon sold large blocks of its rural lines and that AT&T's CEO noted in January 2012—after the FCC's reforms—that the company still had no broadband solution in rural areas. In July 2012, AT&T and Verizon rejected federal aid in building rural broadband networks, presumably because it would be too costly, even after modest FCC-sponsored support allocations, for those large carriers to justify committing resources to high-cost customers and communities.

Glossary

- **Access:** Switched access permits the use of common terminating, switching and trunking facilities of a carrier to connect with various end-users; it has resulted in access charges that are supervised by the FCC for interstate traffic and by the state public utility commissions for intrastate traffic. Special access, which is usually large-volume transport provided by a carrier to a customer (usually another carrier) over dedicated wireline circuits that provide physical, point-to-point connections between customer locations and such as a wireless carrier's tower or an Interexchange Carrier's wireline network; there is pricing flexibility for special access rates at the present.
- **ICC or Intercarrier Compensation**: Payments between carriers for services such as terminating or originating long-distance calls; these payments are typically considered to include a payment to offset actual expenses incurred and to provide support for network investment; regulatory reforms of ICC have often included reductions in ICC rates accompanied by increases in end-user rates and some increases in explicit USF because it was judged that some implicit support was embedded in the original ICC rates.
- **Incumbent Local Exchange Carrier or ILEC**: An ILEC is a U.S. local telephone company, generally in existence at the breakup of the Bell System in 1982. Incumbents, by contrast with competitive LECs (CLECs), were part of the former Bell System or were among the independent telephone companies responsible for providing local telephone exchange services in a specified geographic area. Local telephone companies are subject to regulatory oversight by federal and state commissions, and have had historical responsibilities to provide carrier-of-last-resort services to customers, including other carriers such as competitors or wireless carriers.
- **Loop:** A wired connection between a telephone company's switch and the end-user's home or business; it is called a loop because there is a path into the end user and from the end user.
- **Price-cap:** Price-cap ILECs have been relieved of rate-of-return regulation and have some measure of freedom to set their prices in response to market conditions while still being limited to historical average revenue per customer and uniform pricing across geographies irrespective of cost. The price-cap carriers are usually the largest ILECs and are subject to FCC regulations that are different from those that apply to rate-of-return carriers.
- **Rate of return:** Rate-of-return ILECs that are usually small carriers (often serving1,000 to 20,000 lines) and subject to more regulations; these carriers have previously been able to realize some better economic protections as they were generally assured a rate of return on investment that approximated 11.25%. Because of the recent reforms, this protection may be at risk, particularly with the phased elimination of intercarrier compensation funds.
- **Support:** Most often, support refers to funds provided to aid network investment and operations for benefit of customers of an ILEC whose service region is so costly that service could not be provided to customers at a rate that would be economic; support generally refers to USF but can include implicit support in intercarrier compensation.
- **Uneconomic-to-serve:** Geographic regions—often within exchanges or census blocks—in which expected revenues for services will not generate a sufficient return on invested network and ongoing expenses to provide those services.
- **USF:** Federal Universal Service Fund which is mandated in the Telecommunications Act of 1996, Section 254; states can also have state universal support mechanisms that work in concert with the federal USF as mandated in Section 254(b)(5): "There should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service."

Engaging People, Linking the World –

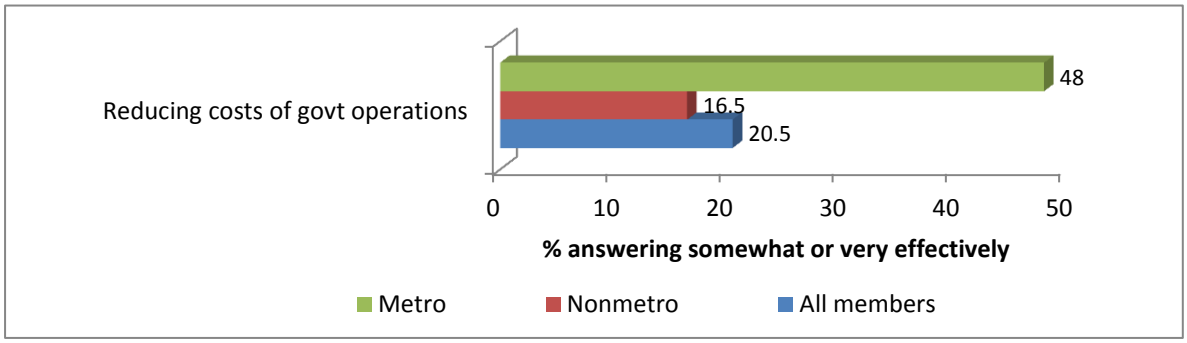
Broadband Planning Activities Update Report

Highlights of NACO Broadband Survey

- Online survey distributed to 826 members via email
- 329 responses (40% response rate)
- Types of officials responding: 34% county clerk, register of deeds or treasurer; 24% county attorney, public defender, clerk of district court or sheriff; 22% county commissioner or supervisor; 13% county assessor or surveyor; 6% other
- Most of the officials responding were from nonmetropolitan counties (87%).

Perceptions of Technology in their County

- 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.



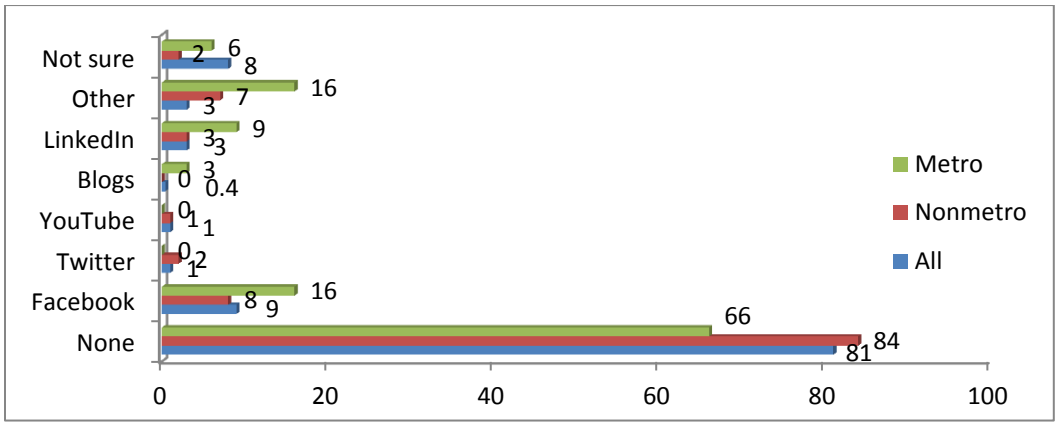
- Not many NACO members see broadband being used somewhat or very effectively in their county for such things as: encourage citizen involvement (25%), increasing quality of life (24%), making current businesses more competitive/profitable (23%), attracting businesses (22%), attracting employees/residents (22%), or retaining businesses (21%).

- However, most NACO members agree that access to high-speed Internet services is helping residents accomplish such items as: accessing financial services (74%), reaching higher education levels (66%), improving job skills/professional development (64%), getting health information (62%), and finding a better job (52%).

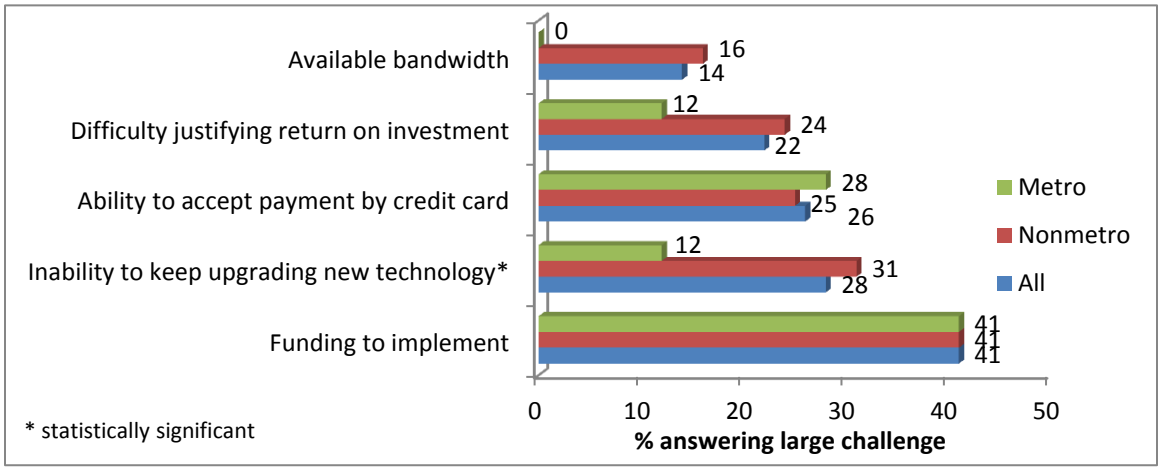
Initial and Supplemental Proposals awarded to Nebraska Public Service Commission (PSC) from the U.S. Department of Commerce National Telecommunications and Information Administration (NTIA). NTIC, UNL, DED and the AIM Institute are cooperatively leading the broadband planning efforts.

Technology Use

- Most of the county officials have a webpage (80%). Most of the webpages contain basic information such as officials' contact information (96%), forms to download (55%) or meeting schedules, agendas and minutes (52%). However, not many contain online services: 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%).
- Most NACO members do not use social media (81%). Of those who do use social media, very few (11%) are very confident that they are effectively using these tools. County officials in metropolitan counties are more likely than officials in nonmetropolitan counties to use social media applications.



- Just over one-quarter (26%) of NACO members say their county has the ability to do video arraignments for judges.
- Most NACO members believe their Internet connection speeds for their organization are fast enough for their needs. However, members in metropolitan counties are more likely than members in nonmetropolitan counties to be dissatisfied with the price of their Internet services (19% compared to 14%) and their customer service (29% compared to 13%).
- Many NACO members rate funding as a large challenge to moving county government services to the Internet.



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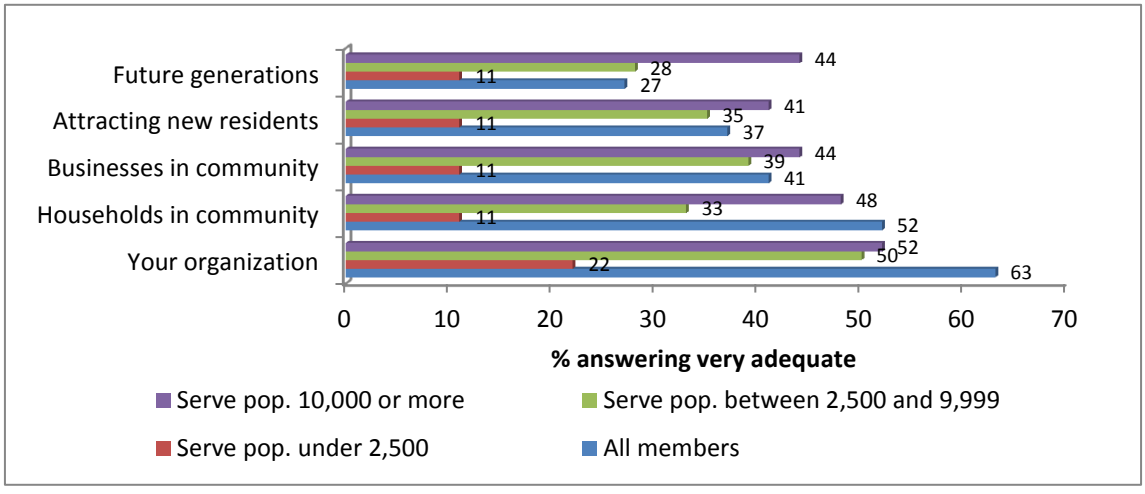
Highlights of NEDA Broadband Survey

- Online survey distributed to 333 members via listserv
- 76 responses (23% response rate)
- Types of organizations responding: 31% city/county/regional economic development company/organization, 24% service provider, 19% city/county government, 8% combined chamber/economic development organization, 7% chamber of commerce, 3% development districts, 9% other (mainly service providers)

Perceptions of Technology in Community or Area

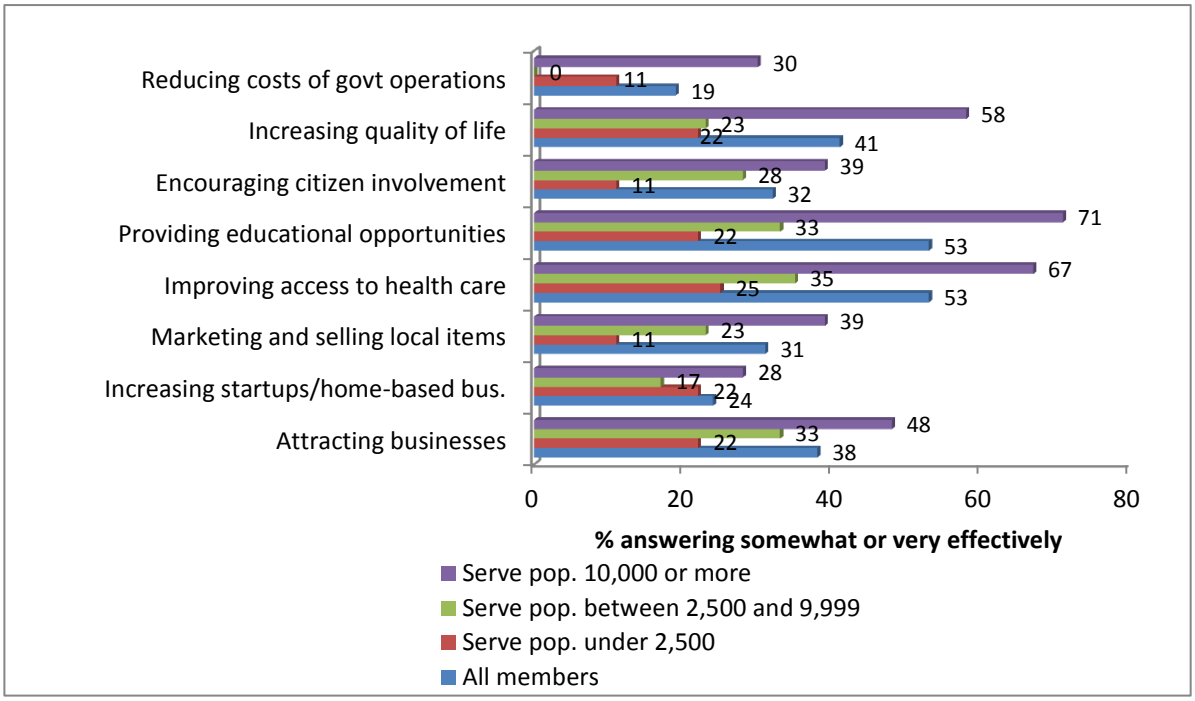
- Organizations serving areas with smaller populations are less likely than organizations serving larger population areas to say their locale has incorporated broadband into their economic development plan.
    - 28% of economic development organizations (local governments, chambers or economic development organizations) say their locales have incorporated broadband into their plan or are writing a plan now that will incorporate broadband.
        - 11% serving population of 2,500 or less
        - 36% serving population between 2,500 and 9,999
        - 25% serving population of 10,000 or more

- NEDA members serving smaller population areas are less likely than members serving larger population areas to think the Internet services in their area are very adequate for households in the community, businesses in the community, and for future generations.



Initial and Supplemental Proposals awarded to Nebraska Public Service Commission (PSC) from the U.S. Department of Commerce National Telecommunications and Information Administration (NTIA). NTIC, UNL, DED and the AIM Institute are cooperatively leading the broadband planning efforts.

- Members whose organizations serve smaller population areas are less likely than members who serve larger population areas to see broadband services being used effectively in their locales for some activities.



- Service providers are more likely than economic development organizations to think their locale is using broadband effectively to achieve the following:
    - Reducing costs of government operations - 46% compared to 10%
    - Attracting businesses – 69% compared to 28%
- NEDA members serving smaller population areas are less likely than members serving larger population areas to agree that access to high-speed Internet services is helping residents in their area to achieve the following: improving job skills/professional development, starting a home-based business, and community and emergency alerts.

Technology Use

- Most of the chambers of commerce and economic development organizations include information for their residents, businesses or prospective residents on their website. Many anticipate adding surveys/polls and videos about their community or area.
- Most NEDA members use Facebook (75%) to interact with the public. Other social networking applications used include: LinkedIn (48%), Twitter (27%), YouTube (27%), and blogs (11%). Sixteen percent indicate they don't use any social networking applications. Many (41%) are not at all confident that they are effectively using social media tools.
- Most NEDA members believe their Internet connection speeds for their organization are fast enough for their needs. However, members that are an economic development organization are less likely than members who are service providers to rate their upload speeds as fast enough for their needs (56% compared to 83%).

Initial and Supplemental Proposals awarded to Nebraska Public Service Commission (PSC) from the U.S. Department of Commerce National Telecommunications and Information Administration (NTIA). NTIC, UNL, DED and the AIM Institute are cooperatively leading the broadband planning efforts.

A Bureau of Business Research Report
From the UNL College of Business Administration

Final Report

Economic Impacts of Rural Telecommunications Firms

Prepared for Nebraska Rural Independent Companies

- Consolidated Telephone Companies
- Great Plains Communications
- Hartington Telecommunications Co.
- Hershey Cooperative Telephone Company
- K&M Telephone Company
- Nebraska Central Telephone Company
- Northeast Nebraska Telephone Companies
- Stanton Telephone Company
- Three River Telco

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Executive Summary

Telecommunications infrastructure capable of providing advanced telecommunications and information services, such as broadband, as set forth in Nebraska Statutes[1] is an increasingly important asset for Nebraska communities, urban and rural alike. Nebraska is a diverse state with both rural and urban interests. While these interests can appear different, both populations rely upon each other to thrive within the State as well as nationally. Availability of these advanced services is critical for communities to successfully compete based on the strength of their labor force, the ingenuity of their businesses, and the value of their products and services.

This Report by the University of Nebraska-Lincoln Bureau of Business Research analyzes the role of universal service policies generally and specifically the role of the Nebraska Universal Service Fund (NUSF) relative to the competitiveness of Nebraska rural businesses and communities. The Report also examines the critical role that rural businesses play in the Nebraska economy.

In summary, the findings of this Report are that rural businesses not only support Nebraska's rural economy but also support thousands of jobs in Nebraska cities, including the two metropolitan areas of the State. The Report also finds that access to the types of services afforded by broadband infrastructure is an important factor influencing the growth of rural Nebraska businesses. Investment in more advanced networks for the provision of broadband services is positively correlated with business income, business location, education levels and the presence of young adults in rural Nebraska communities.

Specifically, the analysis contained in the Report demonstrates a strong correlation between median income in rural communities and the availability of higher speed broadband services and broadband subscribership. This correlation indicates that the presence and use of more advanced broadband services is associated with higher incomes in rural areas. Analysis also demonstrated a correlation between the availability of higher speed broadband services and the presence of industries in rural communities. Specifically, communities with higher speed broadband services were found to have businesses operating in more types of industries.

The availability of broadband services also appears to be associated with a higher educated and younger labor pool upon which rural business and communities can draw.

[1] See Nebraska Revised Statutes at 86-323.

Analysis contained in the report indicates a positive correlation between higher available broadband speeds and the number of persons with college and graduate degrees residing in rural communities. Also, a similar positive correlation was observed between broadband speed and the number of individuals between the ages of 18 and 34 which live in rural communities.

Finally, the Report concludes that the Nebraska and Federal Universal Service Funds play a key role in the development of broadband infrastructure within small towns and the surrounding rural areas of Nebraska. Estimates indicate that the level of broadband infrastructure would decline by nearly 50% without support from these Universal Service Funds. This conclusion provides strong support for the State of Nebraska's continuing commitment to the NUSF in order to ensure universal access to advanced telecommunications and information services for rural Nebraska consumers and businesses.

The analyses contained in this Report provide strong evidence that the receipt of universal service dollars in the form of revenue support has a significant, positive impact on the broadband and related telecommunications investment by rural telecommunications providers in Nebraska. On average, historically every dollar of universal service support received by rural providers resulted in $4.60 of investment. In 2011, for the six rural companies included in the Report's analyses, the existing universal service funding mechanisms are estimated to have resulted in more $158 million of existing telecommunications infrastructure, more than 47% of the companies' total capital investment.

Further, universal service support also appears to play a role in offsetting expenses in economically unviable areas. Analyses indicate on average rural companies incur $0.16/year of expense to maintain and operate each dollar of investment in rural areas. The six rural companies are estimated to have incurred more than $25 million in expenses during 2011 to maintain and operate the telecommunications infrastructure investment which occurred as the direct result of universal service support. Given the relative low customer density in many rural areas, revenues received from customers are likely insufficient to recover these operating expenses. In these cases universal service support appears to be a necessity not only to make the investments but also to the operation and maintenance of such investments.

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I. Introduction

Telecommunications network infrastructure is an increasingly important economic asset for all Nebraskans. In the modern economy, viable communities must have cutting edge telecommunications and information services available at competitive prices. Such availability is critical for communities competing for both business and population. Perhaps more importantly, availability of advanced telecommunications and information services is critical to the success of businesses and the quality of life of all Nebraska residents.

Available infrastructure also has a practical implication of fostering a vibrant competition among our state's communities, requiring communities to compete based on the strength of their labor force, the ingenuity of their businesses, and the effectiveness of their services, rather than simply based on access to basic infrastructure and services. The alternative would be to create a permanent advantage in a handful of communities with a critical mass of citizens and business, a potentially much less competitive environment.

This Report by the UNL Bureau of Business Research examines the economic impact of advanced telecommunications and information services provided to rural communities in Nebraska, whether these communities consist of small towns or the surrounding rural areas. The Report examines benefits to both local and the State economies from providing rural areas with access to cutting edge telecommunications and information services supported by broadband infrastructure. The Report also examines how universal service programs help the private sector provide advanced telecommunications and information services including broadband access to consumers throughout Nebraska.

The Report will demonstrate that access to broadband infrastructure is and will be critical to the future of Nebraska's economy. While there has been a decline in demand for traditional landline voice services, this is not the result of customers abandoning so-called "plain old telephone service" at their businesses and residences, but rather is the result of customers substituting advanced services such as high-speed broadband services. In fact, the total number of Nebraska household connections to the fixed network has actually increased for companies despite the decline in traditional landline voice connections[2]. Further, fixed telecommunications services are typically designed for shared use. Fixed broadband service

[2] In 1998, the six companies included in the analyses contained herein had 45,126 connections to households. In 2011, the six companies had 47,536 connections.

such a digital subscriber line, allow users to connect routing devices so that multiple users can access different services simultaneously. Such shared use can be done either through wired connections attached directly to the routing device or wirelessly through a Wi-Fi connection. Potential alternatives such as cellular or mobile services are designed for a single user.

Moreover, as the mobile providers increasingly impose data limit caps, many users turn to Wi-Fi services provided by use of fixed telecommunications services provided over the wireline telecommunications network in order to meet their data usage needs at affordable costs. Nearly any wireless device sold today also has built in Wi-Fi for the purposes of allowing users to transfer usage which in the past had been carried only on the cellular networks to the wireline telecommunications network. It is this wireline telecommunications network which is supported by universal service policies. Additionally, some mobile devices such as Amazon's Kindle and Apple's IPAD are often sold with only Wi-Fi and not traditional cellular connectivity.

Our analyses are set forth in four sections that follow. Analyses in Section II describes the critical role that businesses located in rural Nebraska play in the State's economy, supporting business activity both in nearby trade centers and in the larger metropolitan areas of Omaha and Lincoln. The importance of access to advanced telecommunications and information services is examined in Section III, in particular how access to broadband contributes to the growth of rural businesses, and meets the needs of rural consumers. Analyses in Section IV describes the critical role that the Nebraska and Federal Universal Service Funds plays in creating an environment where private sector companies can invest in rural broadband infrastructure, the very types of investments that support growth in rural communities and employment in towns and cities throughout the State. Spending to support universal service provides key infrastructure and basic services to businesses and residential consumers located throughout the State. Other examples of this commitment to universal service are described in Section V, in particular state and federal efforts to support road systems, postal service, and health and education services in rural Nebraska. The conclusions reached in the Report are summarized in Section VI.

II. Importance of the Rural Economy to Urban Economies in Nebraska

The rural telecommunications network is a key component of the infrastructure of rural economies, along with road systems, electric services, education institutions and health services. Each of these key infrastructure components plays a central role in supporting rural

economies throughout the State of Nebraska, since each component is required by both modern businesses and the modern workforce. Inadequate or missing infrastructure hinders businesses of all kinds, meaningfully reducing the output of Nebraska's rural economy.

What is more, a lack of adequate telecommunications or other infrastructure would have a negative impact on the entire Nebraska economy, including urban Nebraska, since many urban businesses are reliant on the productive capacity of the rural Nebraska economy. Most notably, crops and livestock produced so abundantly in rural Nebraska have over time attracted a larger cluster of supplier and processor industries to the State. Many of these businesses are located in rural Nebraska, and are also dependent on the rural infrastructure system. However, many key processing businesses are also located in the urban areas of the State, including the metropolitan areas of Omaha and Lincoln and retail trade areas located throughout the State from Scottsbluff to Fremont.

This section considers these key linkages between the rural and urban economies within Nebraska. The first step is to describe Nebraska's large agricultural production complex, the key role of rural businesses within this complex, and the significant benefits of the complex to urban economies. In the second step, we examine the spillovers between rural businesses and suppliers located in rural Nebraska. This analysis focuses on key businesses of all kinds in rural Nebraska including manufacturing, agriculture, tourism, and other large businesses. Both steps demonstrate the central role that rural businesses play in the Nebraska urban economy and the Nebraska economy overall. The implication of this central role is that these key rural businesses must have access to adequate – if not robust - infrastructure and services to succeed, maximizing the benefits for both rural and urban economies within Nebraska.

A. The Agricultural Production Complex

Economic researchers have consistently found that rural economies play a critical role in the Nebraska economy (Thompson, Johnson and Giri, 2012).[3] This role is derived from the State's large output of crop and livestock production which underpins a large and growing agricultural production complex. That production complex is located throughout the State and includes a significant share of the State's manufacturing, transportation, and wholesale sectors. These impacts were reported in the document *The 2010 Economic Impact of the Nebraska Agricultural Production Complex* (Thompson, Johnson and Giri, 2012). The agricultural

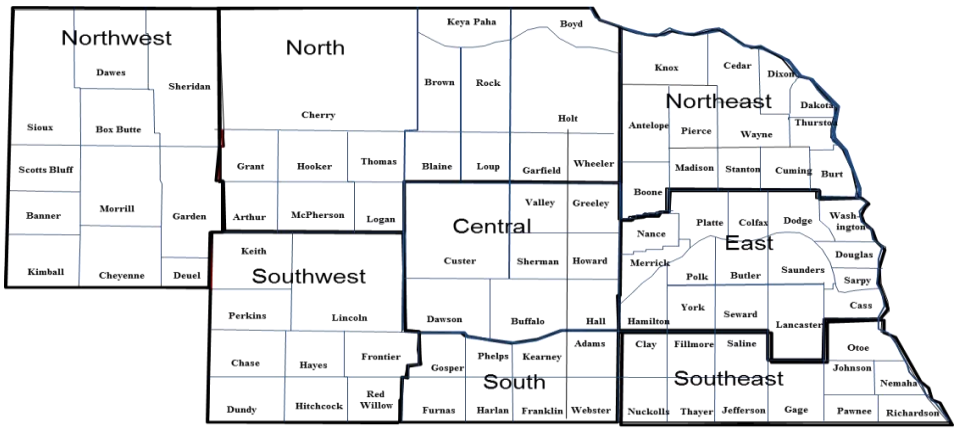
[3] Thompson, Eric, Bruce Johnson and Anil Giri, 2012. *The 2010 Economic Impact of the Nebraska Agricultural Production Complex*, Department of Economics, Report 192 (June)

production complex includes industries that supplies farmers and ranchers and process their production. Key supplier industries include industries such as farm implement manufacturers, implement dealers, agricultural cooperatives, and transportation services. Key processor industries include ethanol plants, mills, livestock slaughtering plants, and crop wholesalers, among others. Agricultural producers, key suppliers, and processors form a cohesive production complex because the suppliers and processors would not be located in Nebraska without the high levels of crop and livestock production in the state.

Specifically, the Report estimated the share of employment, labor income, value-added and output in Nebraska that is within the agricultural production complex. This complex includes both agricultural producers and the key processer or supply businesses that are present in the State due to Nebraska's enormous output of crops and livestock. A significant share of activity in the agricultural production complex is located in rural areas. In particular, the vast majority of agricultural production occurs in rural areas and a portion of the processing and supply industries is also located in rural areas. However, it is also true that a substantial share of the supplier and processor industry is located in more urban areas of Nebraska. This fact implies that a significant share of urban economies within Nebraska is dependent on a thriving rural business environment, and on the rural telecommunications and other infrastructure that supports the rural economy.

Table II.1 shows the share of direct labor income in Nebraska which results from employment within the agricultural production complex. The focus is on labor income in the complex itself, excluding any spillover (i.e., multiplier) impacts to other types of business. The share of labor income in the complex is shown separately for agricultural production such as crops and livestock and for other types of businesses such as manufacturers, wholesalers, or transportation firms. Results are provided both for the State overall and for eight agricultural regions within the State. The agricultural regions are listed in Figure II.1.

Figure II.1
The Agricultural Regions of Nebraska



Source: Reprinted from Thompson, Eric, Bruce Johnson, and Anil Giri, 2012. *The 2010 Economic Impact of the Nebraska Agricultural Production Complex*, Department of Economics, Report 192 (June)

Looking at the results in Table II.1, a large share of labor income in the complex occurs outside of production agriculture, in the types of key processor and supplier businesses that are often concentrated in the urban areas of the State. Such manufacturing, wholesale and transportation businesses are often located within trade centers such as Scottsbluff and Fremont, as well as in the Lincoln and Omaha metropolitan areas. Statewide, 6.5% of State labor income (including proprietor income) is earned in the agricultural production sectors of farming and ranching. However, an even a larger share of statewide labor income, 6.9%, is earned within other parts of the agricultural production complex in the areas of manufacturing, transportation and wholesale businesses.

Table II.1 Share of Labor Income in Agricultural Production Complex Businesses				
	Farming and Ranching		Other Complex Businesses	
Region	Amount (Millions $)	Share of Region	Amount (Millions $)	Share of Region
Northwest	$213.3	10.4%	88.7	4.3%
North	$181.1	31.7%	$50.0	8.7%
Northeast	$741.5	26.3%	551.0	19.5%
Central	$426.7	11.5%	628.3	17.0%
East	$836.3	2.2%	1,639.1	4.4%
Southwest	$303.1	18.7%	154.1	9.5%
South	$385.9	30.5%	179.2	14.1%
Southeast	$392.7	18.7%	400.6	19.1%
Total	$3,480.6	6.5%	3,691.0	6.9%

Source: Thompson, Eric, Bruce Johnson, and Anil Giri, 2012. *The 2010 Economic Impact of the Nebraska Agricultural Production Complex*, Department of Economics, Report 192 (June), Table 5.3

The pattern among individual regions demonstrates the concentration of these processing and supplier sectors in urban Nebraska. In the East region, which includes both Omaha and Lincoln, nearly two-thirds of labor income is earned in supplier and processing sectors, particularly in manufacturing businesses that either process agricultural goods or supply agricultural producers. The East is also the largest region in terms of labor income from farming and ranching. There is a large farm and ranching sector in the East region, and there are many manufacturing, transportation, and wholesaling businesses that are also located in rural areas in the East region. But, it is also clear that the agricultural production in rural Nebraska also supports a large manufacturing, transportation, and wholesaling industry in urban areas within the region, including the Omaha and Lincoln metropolitan areas and the Columbus and Fremont micropolitan areas.

The pattern is repeated in the Central region, which is home to the Grand Island, Kearney, and Lexington micropolitan areas. Labor income from farming and ranching is also slightly less than labor income in other complex businesses in the Southeast region, which is home to micropolitan areas such as Beatrice, and mid-sized towns such as Nebraska City and Fairbury.

To summarize, the data in Table II.1 shows that there is a large rural production complex related to agriculture which clearly supports manufacturing, transportation and wholesaling

businesses, many of which are located in urban Nebraska. Naturally, there are also many manufacturing, transportation, and wholesaling businesses located in rural Nebraska, including businesses that are not focused on agriculture. These businesses are discussed in the next section of the Report. In particular, these rural businesses also support businesses and employment in urban Nebraska in another way, through the multiplier effect, which is the additional employment and business activity that is created when businesses purchase goods and services and employees spend their paychecks. The next section examines how the activity of rural farming, ranching, manufacturing, transportation, tourism businesses and other major employers supports businesses and workers in urban Nebraska.

B. The Multiplier Impact of Rural Businesses on the Urban Economy

Beyond the direct employment and output discussed in the previous section, rural businesses also generate a significant multiplier impact on the urban Nebraska economy. These urban economies include regional trade centers such as Scottsbluff, North Platte, Lexington, Kearney, Hastings, Grand Island, Columbus, and Fremont as well as the two largest metropolitan areas of Omaha and Lincoln. This section will examine the impact of rural businesses, both agricultural and non-agricultural, on urban economies. A broad group of businesses were examined including farms, ranches, tourism businesses, manufacturers, and others. Specifically, we estimated how much employment exists in these urban economies in order to serve these rural businesses and their employees. In the analysis, note that farms, ranches, and other businesses located non-trade center counties and in NUSF supported areas of trade center counties (for example, rural Hall County) are considered to be rural businesses. Nebraska Rural Independent Companies were asked to provide lists of non-agricultural businesses for consideration in the economic impact analysis. The analysis does not consider business located in the Lincoln and Omaha metropolitan areas.

Such analysis is possible because of recent advancements in economic modeling software that allow researchers to estimate how direct economic activity (such as agricultural production) in one region impacts businesses in another region. Specifically, the research team will use this feature of the IMPLAN modeling system to assess how rural businesses impact the economies of Omaha, Lincoln and regional trade centers of Nebraska.

Analysis will focus on agricultural and non-agricultural businesses in areas supported by rural telecommunications companies. Analysis for each specific county will examine the economic impact of corn production, soybean production, other major crop production, and

livestock production on the same county, but also on the nearest retail trade area (i.e., micropolitan area), the City of Omaha and the City of Lincoln.

Economic impact analysis is comprised of two parts: 1) the direct economic impact and 2) the multiplier impact. The direct economic impact is sales, employment, and labor income of the agricultural producers, manufacturing firms, or tourism businesses located in a particular rural county. The multiplier effect is the additional economic activity at other businesses in Nebraska that either supply farmers, ranchers, manufacturers, or tourist businesses (wholesalers, accountants, energy providers, etc.) or are patronized by proprietors or employees of farmers, ranchers, manufacturers, and tourist businesses. Much of the multiplier impact occurs locally, in the same county. However, the multiplier impact can occur throughout the State at nearby retail trade centers, or in larger cities such as Lincoln and Omaha. In other words, the impact of rural agricultural and non-agricultural businesses on these cities occurs through the multiplier effect. Table II.2 lists the retail trade centers included in the analysis.

Table II.2
Trade Center Counties (Cities) Included in the Analysis

Gage	(Beatrice)
Platte	(Columbus)
Dodge	(Fremont)
Hall	(Grand Island)
Adams	(Hastings)
Scotts Bluff	(Scottsbluff)
Box Butte	(Alliance)
Madison	(Norfolk)
York	(York)
Buffalo	(Kearney)
Dawson	(Lexington)
Otoe	(Nebraska City)
Lincoln	(North Platte)
Dakota	(South Sioux City)

Table II.3 shows the direct economic impact of agricultural producers located in rural counties. The “other” category includes hog production as well as selected manufacturers and other key non-agricultural businesses located in service territories supported by the Nebraska Universal Service Fund (NUSF). Results are presented for the year 2010 since this is the most current year for which IMPLAN economic multipliers are available to conduct the analysis. 2010

is also a useful year for analysis since it reflects the recent growth in the value of Nebraska agricultural output but is not a "peak year" such as 2011 or a "drought year" such as 2012.

Table II.3 Direct Impact by Category 2010	
Category	Direct Impact (Millions $)
Crops	$8,299.7
Cattle Ranching	$7,910.4
Other	$1,790.6

Source: IMPLAN

As would be expected, the magnitude of the economic impacts is on the order of billions of dollars. This result is similar to what was found in the Report *The 2010 Economic Impact of the Nebraska Agricultural Production Complex.* The total economic impact exceeds this direct impact and includes the "multiplier" impact on businesses and workers throughout the State's economy. This multiplier impact occurs in a multitude of businesses that provide supplies and services for other business and/or provide goods and services to households. In addition to impacting a variety of industries, multiplier activity impacts a variety of geographies. As seen in Table II.4, a portion of the multiplier impact occurs within the same county but important portions also occur in nearby trade centers and in large cities, such as Omaha and Lincoln in the case of Nebraska.

Table II.4 Multiplier Impact By Geography					
		Multiplier Impact (Millions $)			
Category	Direct Impact (Millions $)	Same County	Nearest Trade Center Area	Lincoln MSA	Omaha MSA
Crops	$8,299.7	$2,383.2	$1,191.1	$92.3	$334.9
Cattle Ranching	$7,910.4	$4,421.1	$1,312.3	$67.2	$250.5
Other	$1,790.6	$380.7	$143.5	$21.4	$126.8

Source: BBR calculations using IMPLAN

Table II.5 show the multiplier impact according to another metric, value-added. The pattern of results is similar with the largest impact in nearby trade centers. Table II.6 shows the multiplier impact in terms of labor income and Table II.7 shows the impact in terms of employment. Rural businesses support thousands of jobs in the Omaha and Lincoln metropolitan areas.

Table II.5 Multiplier Impact By Geography - Value-Added					
		Multiplier Impact (Millions $)			
Category	Direct Impact (Millions $)	Same County	Nearest Trade Center Area	Lincoln MSA	Omaha MSA
Crops	$8,299.7	$1,264.4	$657.4	$93.6	$201.4
Cattle Ranching	$7,910.4	$1,284.3	$437.1	$34.9	$122.3
Other	$1,790.6	$239.9	$73.7	$11.2	$69.8

Source: BBR calculations using IMPLAN

Table II.6 Multiplier Impact By Geography - Labor Income					
		Multiplier Impact (Millions $)			
Category	Direct Impact (Millions $)	Same County	Nearest Trade Center Area	Lincoln MSA	Omaha MSA
Crops	$8,299.7	$567.2	$311.7	$36.5	$142.2
Cattle Ranching	$7,910.4	$520.7	$191.8	$23.4	$80.4
Other	$1,790.6	$113.7	$39.8	$7.2	$45.7

Source: BBR calculations using IMPLAN

Table II.7 Multiplier Impact By Geography – Employment					
		Multiplier Impact			
Category	Direct Impact (Millions $)	Same County	Nearest Trade Center Area	Lincoln MSA	Omaha MSA
Crops	$8,299.7	20,700	10,900	1,200	3,500
Cattle Ranching	$7,910.4	17,500	5,800	600	1,700
Other	$1,790.6	3,900	1,200	200	900

Source: BBR calculations using IMPLAN

III: The Importance of Telecommunications Services to Rural Businesses

Next, we endeavored to measure the impact, if any, that the availability and use of advanced telecommunications and information services in rural communities had on businesses in those areas. For our purposes, we focus on three specific areas: median income by business category, education level, and age. We obtained median income for communities

in Nebraska within the nine specific categories[4] shown below from the American Community Services (ACS) data.

- Construction
- Educational services
- Healthcare & Social Assistance
- Information
- Manufacturing
- Professional, Scientific, & Technical
- Retail Trade
- Transportation & Warehousing
- Wholesale Trade

Further, for rural businesses to be competitive in today's markets, they need access to well-educated and younger employees. As a measure of the educated individuals in rural communities, we obtained the number of persons that have attained at least a college degree and those that attained a graduate degree in these areas.[5] As a measure of the number of younger potential employees in rural communities, we obtained the number of individuals in each community that were between the ages of 18 and 34.[6]

Normally, we would have tested the ACS values we obtained for communities in Nebraska with broadband against those communities without broadband services. However, rural companies have deployed broadband services to nearly all communities with Nebraska and we needed to use a different specification. For this reason we developed and used two independent variables in our analysis. This first was the ratio of households subscribed to broadband services to total households to whom broadband services were available within a community. We also used available speed as a surrogate of the quality of the broadband service offered in a community. To this end, we obtained subscribership and available speed information for 159 rural Nebraska communities. These communities represent 63% of the estimated 253 communities which are served by rural telecommunications providers in Nebraska. The average number of households in these 159 communities is 155 and the largest is Imperial Nebraska with 893 households.

The correlation between the chosen dependent variables (median earnings, education, and age) and the independent variables (available speed and broadband subscribership) was

[4] S2403, INDUSTRY BY SEX AND MEDIAN EARNINGS IN THE PAST 12 MONTHS (IN 2010 INFLATION-ADJUSTED DOLLARS) FOR THE CIVILIAN EMPLOYED POPULATION 16 YEARS AND OVER 2006-2010, American Community Survey 5-Year Estimates, downloaded from http://factfinder2.census.gov

[5] B15001, SEX BY AGE BY EDUCATIONAL ATTAINMENT FOR THE POPULATION 18 YEARS AND OVER Universe: Population 18 years and over, 2006-2010 American Community Survey 5-Year Estimates, downloaded from http://factfinder2.census.gov

[6] B01001, SEX BY AGE Universe: Total population, 2006-2010 American Community Survey Selected Population Tables, downloaded from http://factfinder2.census.gov

calculated using the formulas shown below. The correlation values were tested for significance at the 99th percentile and the results are shown in Tables III.1A and III.1B.

$$Corr(y,x) = \frac{Cov(y,x)}{\sqrt{Var(y)} * \sqrt{Var(x)}} \quad t-stat = Corr(y,x) * \sqrt{\frac{n-2}{1-Corr^2(y,x)}}$$

Table III.1A Correlation of Dependent Variables with Available Speed				
Category	Correlation	t-Stat	t-Crit	Result
Construction Earnings	0.2591	3.26	2.35	Positive, Significant
Manufacturing Earnings	0.3243	4.17	2.35	Positive, Significant
Wholesale Trade Earnings	0.2318	2.90	2.35	Positive, Significant
Retail Trade Earnings	0.2872	3.65	2.35	Positive, Significant
Transportation & Warehousing Earnings	0.2841	3.60	2.35	Positive, Significant
Information Earnings	0.1414	1.74	2.35	Positive, Not Significant
Professional, Scientific, & Technical Earnings	0.2008	2.49	2.35	Positive, Significant
Education Services Earnings	0.4072	5.42	2.35	Positive, Significant
Healthcare & Social Assistance Earnings	0.3519	4.57	2.35	Positive, Significant
College or Graduate Degree, 18 Years or Older	0.3804	5.00	2.35	Positive, Significant
Graduate Degree, 18 Years of Older	0.3490	4.53	2.35	Positive, Significant
Population, 18 to 34 Years Old	0.3453	4.48	2.35	Positive, Significant

Table III.1B Correlation of Dependent Variables with Broadband Subscribership				
Category	Correlation	t-Stat	t-Crit	Result
Construction Earnings	0.1081	1.32	2.35	Positive, Not Significant
Manufacturing Earnings	0.2281	2.85	2.35	Positive, Significant
Wholesale Trade Earnings	0.0505	0.62	2.35	Positive, Not Significant
Retail Trade Earnings	0.2521	3.17	2.35	Positive, Significant
Transportation & Warehousing Earnings	0.1421	1.75	2.35	Positive, Not Significant
Information Earnings	0.1031	1.26	2.35	Positive, Not Significant
Professional, Scientific, & Technical Earnings	0.0827	1.01	2.35	Positive, Not Significant
Education Services Earnings	0.2502	3.14	2.35	Positive, Significant
Healthcare & Social Assistance Earnings	0.2464	3.09	2.35	Positive, Significant
College or Graduate Degree, 18 Years or Older	0.0793	0.97	2.35	Positive, Not Significant
Graduate Degree, 18 Years of Older	0.1076	1.32	2.35	Positive, Not Significant
Population, 18 to 34 Years Old	0.0134	0.16	2.35	Positive, Not Significant

The correlations for both available broadband speed and broadband subscribership with median earnings, education, and age are positive. A positive correlation between two variables

signifies that on average as the values of one of the variables increases, the values of the other variables increases as well. However, not all of the relationships are statistically significant, meaning that the two variables are not strongly correlated in all categories. Except for median earnings for information services, available broadband speed and the variables for median earnings, education, and age are both positively correlated and significant at the 99th percentile. Only the positive correlations between broadband subscribership and the variables for manufacturing, retail trade, educational services, and healthcare & social assistance earnings are statistically significant at the 99th percentile. **This analysis indicates that the median earnings, higher educated population, and younger workforce are positively correlated with available broadband speed. This result is consistent with the premise that rural communities with higher available broadband speeds generally have higher median earnings and more highly educated and younger residents.**

The correlation between the two independent variables, available broadband speed and broadband subscribership was also tested. This indicated that available broadband speed and broadband subscribership are highly correlated, with the results positive and significant at the 99th percentile. Given this result, the relationship between these two variables was quantified using ordinary least square regression. Since available broadband speed appears to be the stronger explanatory variable, as shown later in the analyses contained in this Report, it was selected as the independent variable and the following model specification was employed.

$$Subscribership = \beta_1 + \beta_2 Speed$$

The coefficient on available broadband speed was significant at the 99.99th percentile and the results are shown in Table III.2 below.

Table III.2
Coefficient Estimate for $Subscribership = F(Speed)$

Speed Coefficient	T-Stat
0.065144	7.437351

These results indicate that, on average, a 1 mbps increase in available broadband speed increases broadband subscribership by 6.5%

Next, we sought to determine if broadband speed and subscribership are correlated with the likelihood of a business locating in a rural area. To this end, we used the median income by business category for the 159 rural Nebraska communities. For each of the nine business

categories, an indicator series was created. If the ACS data indicated that a community had income for a given business category, the relevant indicator series took on a value of one for that observation and zero otherwise. Then each indicator series was tested against broadband speed and broadband subscribership using a probit model specification. A probit model tests whether the independent variables increase or decrease the likelihood of a given event occurring. In our test, the event is businesses locating in rural communities based upon income for that business category. The model specification used for each of the nine business categories is shown below.

$$\begin{aligned} IND_{Business} &= \beta_1 + \beta_2 Speed + \beta_3 Subscribership \\ p &= P[Z \leq \beta_1 + \beta_2 Speed + \beta_3 Subscribership] \\ &= \Phi(\beta_1 + \beta_2 Speed + \beta_3 Subscribership) \end{aligned}$$

For each of the nine business categories, the probit model results indicated that available broadband speed was positively correlated with the likelihood of a rural community having income in the relevant business category. All nine of the speed coefficients were positive and significant at the 97th percentile and eight of the nine coefficients were significant at the 99th percentile. **This indicates that rural communities with higher available broadband speed also have a higher likelihood of businesses being located within the community.**

When modeled with available broadband speed, none of the variables associated with broadband subscribership were significant at the 80th percentile. When available broadband speed is excluded and the model specification $p = P[Z \leq \beta_1 + \beta_2 Subscribership]$ is used, all coefficients on broadband subscribership are positive. For seven of the nine business categories, the associated coefficients are significant at the 90th percentile, and four of the nine categories are significant at the 98th percentile. **These results are indicative of broadband subscribership having a positive relationship with the location of businesses in rural communities. However, available broadband speed appears to have a stronger relationship with business location than broadband subscribership**. Further, we cannot exclude the possibility that the positive correlation between subscribership and business location only results because broadband subscribership is correlated with broadband speed.

Next, the analysis sought to determine if an increased likelihood that rural communities had higher median income in the nine business categories was correlated with available broadband speed and broadband subscribership. The average median income across the 159

rural communities was calculated for each business category. Indicator series were created for each business category. If the median income for a community in a given business category was greater than the average for that category, the indicator series took on a value of one for that observation or zero otherwise. Then the model specification $p = P[Z \leq \beta_1 + \beta_2 Speed + \beta_3 Subscribership]$ was used for the indicator series associated with each business category.

The available broadband speed coefficients for each of the nine business categories were positive and significant at the 90th percentile and significant at the 98th percentile for eight of the nine categories. **These results are consistent with the premise that rural communities with higher available broadband speeds are more likely to have higher median income in each of the nine business categories.**

Similar to earlier results, when modeled with available broadband speed, only one of the coefficients on broadband subscribership was significant at the 90th percentile. However, when the functional form of $p = P[Z \leq \beta_1 + \beta_2 Subscribership]$ is again used, all the coefficients on broadband subscribership are positive. Eight of the nine coefficients are significant at the 84th percentile and five of the nine are significant at the 98th percentile. **These results are indicative of broadband subscribership being correlated with higher median income. However, again these results suggest available broadband speed has a stronger influence on median income that broadband subscribership**. Further, we cannot exclude the possibility that the positive correlation between subscribership and business income only results because broadband subscribership is correlated with broadband speed.

Next, a similar analysis was performed on education and age. The average number of individuals holding at least a college degree, individuals holding graduate degrees, and individuals between the ages of 18 and 34 were calculated across the 159 rural communities in this analysis. Three indicator series were created. If the number of individuals in a given community exceeded the relevant average, the indicator series took on a value of one for that observation or zero otherwise. The probit model specification $p = P[Z \leq \beta_1 + \beta_2 Speed + \beta_3 Subscribership]$ was then used to measure the likelihood of above average educated and younger individuals in rural communities based on available broadband speed and broadband subscribership.

The coefficients on available broadband speed were positive and significant at the 85th percentile for individuals holding at least a college degree, those holding a graduate degree, and those between the ages of 18 and 34. Two of the three coefficients were significant at the

90th percentile. **These results demonstrate that higher available broadband speeds are correlated with a higher educated and younger population within rural communities.**

The coefficients on broadband subscribership were not statistically significant for either individuals holding at least a college degree, those holding a graduate degree, or those between the ages of 18 and 34. This finding was observed both when broadband subscribership was modeled jointly with available broadband speed and when modeled separately. **Thus these findings suggest that broadband subscribership does not increase the probability of having a higher educated and younger population within rural communities.**

In summary, available broadband speed and broadband subscribership are positively correlated with both median earnings and higher educated and younger populations in rural communities in Nebraska. Further available broadband speed appears to increase the probability of a rural community having higher than average median earnings as well as a higher education and younger population. Finally, higher available broadband speeds appear to be associated with increased broadband subscribership within rural communities.

IV: The Role of the Universal Service Fund in Deployment of Broadband Infrastructure

The concept of universally available telecommunications service has existed for many decades. It was formally adopted as the policy of United States with the passage of the Telecommunications Act of 1934. At its heart, the policy and implementation of universal service is relatively straight-forward. In exchange for charging a rate below the cost of providing a given service, a telecommunications provider receives revenue through another means to recoup any unrecovered costs related to the service(s). These "universal service" revenues can be generated through either implicit (combined in the rate for another service) or explicit (a stand-alone rate(s)) means.

With the break-up of the Bell system in 1984, the primary source of universal service shifted from "settlements and separations" to a system of "access charges" assessed by local telephone companies on the providers of long distance telecommunications services. These access revenues were then used to support the higher cost of providing local telephone service in rural areas. Other secondary sources of universal service support included charging higher rates for business local exchange services than residential local exchange service and charging the same residential local service rates to customers located in low-cost and high-cost markets.

However, some parties argued that implicit support provided by access charges were inefficient, discriminatory and anti-competitive. As part of the Telecommunications Act of 1996, Congress required that implicit universal service support should become explicit. In response to the passage of the Telecommunications Act of 1996, the Federal Communications Commission (FCC) reduced the implicit support provided by access charges and other means and began recovering the costs associated with universal service obligations through explicit universal service surcharges assessed on consumer billings.

In 1997, the Nebraska Legislature enacted the Nebraska Telecommunications Universal Service Fund Act "which supplements federal universal service support mechanisms." *Neb. Rev. Stat.* § 86-317. Administration of this Act was delegated to the Nebraska Public Service Commission (NPSC). Similar to the FCC's actions regarding implicit subsidies, the NPSC implemented rate restructuring by reducing intrastate access charges, increasing local exchange rates and implementing an NUSF surcharge. The NUSF High Cost Program distributes support to high cost areas of the State to promote universal service where no business case exists for a private, for profit telecommunications carrier to provide service.

In determining the amount of universal service support to be provided to a local exchange service provider, the NPSC takes into account the total cost of providing telecommunications service, the total revenues received by a provider from its customers and the amount of federal universal service support the provider receives. Such information is collected annually by the NPSC and used in determining universal service support to be received by qualifying companies. In addition to revenues information, the NPSC collects information on the costs incurred in the provision of telecommunication services. These costs include the total dollar amount of investment which a carrier has made in telecommunications infrastructure as well as total operating expenses.

The most significant cost in the provision of broadband and other telecommunications services in rural areas is what is referred to as the local loop. The local loop is the physical link that connects a customer's location to the telecommunications provider's network. In the development of its current funding methodology, the NPSC used only loop cost in its cost calculations. In order to establish costs of local loops across the State, the NPSC conducted a lengthy docket in which it collected data on loop costs for 1,240 geographic areas within the State[7]. The average loop cost was 10 times higher for those areas with costs above the median

[7] In the Matter of the Nebraska Public Service Commission, on its own motion, seeking to establish a long-term universal service funding mechanism, NUSF-26, Findings and Conclusions, entered November 3, 2004.

than those below. For the top 10% highest cost areas, the average cost was nearly 50 times higher than those in the bottom 10%. This resulted in a conclusion was that there is a vast disparity in loop costs between geographical areas of the State and investments in such facilities represent a primary factor in the need for universal service. Population density was found to be the driver of loop costs. The highest cost areas are out of town locations and distribution of NUSF support is based upon density driven costs.

Loop facilities represent a significant amount of the total investment made by rural telecommunications providers. The lower the customer density and the longer the distance of the local loop that consists of copper wire or fiber optic cable, the greater is the cost to provide service. Further, in order to provide broadband services in rural areas, significant upgrades need to be made so that local loop facilities can carry the increased bandwidth required to provide these and other advanced services. Thus the ability of rural providers to undertake such investments in loop plant infrastructure is vital to the provision of broadband services. As such, we endeavored to identify if universal service funding has any impact on the level of infrastructure that a rural carrier can sustain. Given that universal service funding has existed in many forms, in both implicit and explicit forms, we examined the relationship between total investment, referred to a total plant in service, and total revenues.

We obtained the NUSF data submitted by six rural providers in Nebraska. For two providers we obtained data for the years of 1998 through 2011. From three providers we obtained data for the years of 1999 through 2011. From one provider we obtained data for the years of 2002 through 2011.

We tested the hypothesis that total plant in service ($TPIS_t$) was a function of total revenues lagged one period (REV_{t-1}) and total revenues lagged two periods (REV_{t-2}) as shown below.

$$TPIS_t = \beta_1 REV_{t-1} + \beta_2 REV_{t-2}$$

In the event that a change in ownership or regulatory accounting practices occurred for a company during the time frame of our analysis, indicator variables (IND_{Event}) were employed to determine if the event(s) had a statistically significant change on the underlying trend.

$$TPIS_t = \beta_1 REV_{t-1} + \beta_2 REV_{t-2} + \beta_3 IND_{Event}$$

Further, in the case where there was some level of common ownership between two companies, we also tested whether the revenues of the affiliated company influenced the investment level of a company. The following specifications were tested:

$$TPIS_t = \beta_1 REV_{A,t-1} + \beta_2 REV_{A,t-2} + \beta_3 REV_{B,t-1} + \beta_4 REV_{B,t-2}$$
$$TPIS_t = \beta_1 REV_{A,t-1} + \beta_2 REV_{A,t-2} + \beta_3 REV_{B,t-1} + \beta_4 REV_{B,t-2} + \beta_5 IND_{Event}$$
$$TPIS_t = \beta_1 (REV_{A,t-1} + REV_{B,t-1}) + \beta_2 (REV_{A,t-2} + REV_{B,t-2})$$
$$TPIS_t = \beta_1 (REV_{A,t-1} + REV_{B,t-1}) + \beta_2 (REV_{A,t-2} + REV_{B,t-2}) + \beta_3 IND_{Event}$$

The total plant in service of only one company appeared to be influenced by total revenues lagged two periods (REV_{t-2}). However, for all six companies, revenues lagged one period (REV_{t-1}) exhibited a high level of significance related to total plant in service.
The Durbin-Watson test was employed to identify if auto-correlation among the error terms existed. In the event the Durbin-Watson test indicated the possible presence of autocorrelation, the standard errors were adjusted accordingly. Further, the autocorrelation and partial autocorrelation functions of the residuals were reviewed. In the event that an autoregressive (AR) or moving average (MA) model was indicated, the model specification was adjusted accordingly.

The models were tested for misspecification[8] and multi-collinearity[9]. None of the model described above exhibited signs of either misspecification or multi-collinearity. Following is a table of the results obtained from the models specified above.

Table IV.1
Coefficient Estimates for $TPIS = F(Rev)$

Company	Revenue Coefficient	T-Stat	Regression R Squared
A	4.10944	8.00531	0.95654
B	3.17125	72.71360	0.87965
C	3.35992	862.06000	0.84864
D	5.39949	33.02540	0.84457
E	5.50377	7.74817	0.89531
F	4.68418	34.06350	0.85547

[8] The Ramsey RESET test with 3 fitted terms $(\hat{Y}^2, \hat{Y}^3, \& \hat{Y}^4)$ was used to identify possible mis-specification in the models.
[9] Multi-collinearity was tested by review of the auxiliary R-squared results and the covariance of the coefficients.

All of the coefficients on the revenues variables are significant at greater than the 99.9th percentile. The coefficients range from 3.17 to 5.50 with a weighted average of 4.60. This means that for each dollar of revenue, rural companies, on average, make an investment in telecommunications infrastructure of $4.60.

Next, these revenue coefficients were used to estimate the amount of investments which exists as a result of the receipt of universal service support, both federal and State. ***Based on universal service receipts in 2011, more than $158 million or 47.08% of the total investments made by these six companies can be attributed to the universal service revenue support they received. In other words, the receipt of universal service support has allowed rural companies to nearly double the amount of telecommunications infrastructure in their rural service areas.***

We lack the information to specifically identify those communities that only have telecommunications service as a result of universal service support. However, our analysis suggests that the number of communities that only have service as a result of universal service is not inconsequential.

These results are based on a critical assumption. Traditionally federal and state universal service fund programs have required funding recipients to use private equity as the source for financing investment in high cost and other areas. Then, to the extent a given company is not able to recover the costs of investing and the expenses of providing telecommunications services in these high cost areas directly from its customers, universal service funds provide supplemental revenue support. Under this regime, universal service support is treated as revenue to the recipient companies rather than direct investment by agencies of government into private companies. As a result of this policy, universal service funds are leveraged at nearly a 5 to 1 ratio as evidenced by the weighted revenue coefficient of $4.60 discussed earlier. If universal service funds are no longer provided or a portion of these funds are converted into a grant program, this leveraging of universal service dollars would no longer occur.

Next, we sought to determine if the receipt of universal service support was also needed to cover operating expenses associated with the provision of service in high cost areas. To this end, we examined the relationship between operating expenses and total investment. Given that our analysis provides evidence that a significant amount of total investment is the result universal service support, we endeavored to quantify the amount, if any, of operating expenses that could be attributed to universal service supported investments. Similar to our regression

analysis of $Total\ Investment = F(Total\ Revenue)$, this analysis similarly used NUSF information provided to the NPSC to test the hypothesis that $Total\ Expenses = F(Total\ Investment)$. The model specification used is shown below.

$$TotExp_t = \beta_1 TPIS_t$$

In a manner similar to our total investment analysis, if a change in ownership or regulatory accounting practices occurred for a company during the time frame of our analysis, indicator variables (IND_{Event}) were employed to determine if the event(s) had a statistically significant change on the underlying trend.

$$TotExp_t = \beta_1 TPIS_t + \beta_2 IND_{Event}$$

Further, in the case where there was some level of common ownership between two companies, we also tested whether the revenues of the affiliated company influenced the investment level of a company. The following specifications were tested:

$$\begin{aligned} TotExp_t &= \beta_1 TPIS_{A,t} + \beta_2 TPIS_{B,t} \\ TotExp_t &= \beta_1 TPIS_{A,t} + \beta_2 TPIS_{B,t} + \beta_3 IND_{Event} \\ TotExp_t &= \beta_1 (TPIS_{A,t} + TPIS_{B,t}) \\ TotExp_t &= \beta_1 (TPIS_{A,t} + TPIS_{B,t}) + \beta_2 IND_{Event} \end{aligned}$$

Total operating expenses for all six companies appears to be highly influenced by the current level of total investment, as the coefficients exhibited a high level of significance. The Durbin-Watson test was employed to identify if auto-correlated errors existed. The regression results for three of the companies showed possible indications of auto-correlation and the standard errors were adjusted accordingly. The results for one company indicated possible heteroskedasticity and appropriate adjustments were made. Further, the autocorrelation and partial autocorrelation functions of the residuals were reviewed. In the event that an autoregressive (AR) or moving average (MA) model was indicated, the model specification was adjusted accordingly.

The models were tested for misspecification[10] and multi-collinearity[11]. None of the models described above exhibited signs of either misspecification or multi-collinearity. Following is a table of the results obtained from the models specified above.

[10] The Ramsey RESET test with 3 fitted terms $(\hat{Y}^2, \hat{Y}^3, \& \hat{Y}^4)$ was used to identify possible mis-specification in the models.

Table IV.2 Coefficient Estimates for $Exp = F(TPIS)$			
Company	Investment Coefficient	T-Stat	Regression R Squared
A	0.19559	92.95047	0.95946
B	0.18076	88.40864	0.90024
C	0.06786	33.92465	0.73285
D	0.14817	57.18092	0.84657
E	0.11622	242.99782	0.98891
F	0.19480	5.77220	0.97919

All of the coefficients on the total investment variables are significant at the 99.9th percentile. The coefficients range from 0.07 to 0.20 with a weighted average of 0.16. This means that for each dollar of investments, companies, on average, incur $0.16 of operating expenses. ***The receipt of universal service support enables the six companies in our study to make $158 million of investment in high cost areas which they likely would not be able to make otherwise. These high cost investments are estimated to cause the companies to incur additional operating costs of $26 million. As such universal service support is necessary not only for investment in high cost areas but operating expenses as well.***

V: The Universal Service Fund in the Context of Rural Development Efforts

Support for rural telecommunications services through the universal service funds falls within a broader tradition to promote rural growth in Nebraska and ensure that rural areas have the infrastructure and services needed to remain competitive with urban areas. The tradition is best seen in the level of support in rural Nebraska for other key utilities services, the postal service, and highway systems. Rural telecommunications services also improve the delivery of the key services of health care and education to rural Nebraska. State government has also traditionally had a role in delivering these services to Nebraska households. Support for broadband infrastructure is an effective way to do so. Each of these issues is discussed in more detail in the paragraphs that follow, beginning with a discussion of road infrastructure.

[11] Multi-collinearity was tested by review of the auxiliary R-squared results and the covariance of the coefficients.

A. Nebraska's Tradition of Support for Rural Infrastructure and Key Services

Roads provide critical infrastructure for business and community development throughout Nebraska. Given the importance of roadways, it is perhaps not surprising that the State of Nebraska has been active in providing adequate highway service to communities throughout the State, and support for local road systems within cities and counties. These efforts might even be described as a program to provide universal roadway transportation services throughout the State of Nebraska. The completed and proposed Nebraska Expressway System is an excellent example. The goal of the expressway system is to provide all communities of population 15,000 and higher with access to the interstate highway system. Further, by affording this access, the system also provides vastly improved access to small communities or rural countryside located along or adjacent to the expressway system. .

Development of the expressway system in Nebraska over the last two decades has represented a substantial expenditure to improve the highway services to rural areas, small towns, micropolitan areas and other larger towns (of at least 15,000 population) across the State. The State of Nebraska has taken steps to accelerate the completion of the expressway system in recent years by developing a new funding source for investment projects. Specifically, the Legislature recently passed legislation (LB 84) in order to expand highway spending in Nebraska with a State Highway Capital Improvement Fund supported with 0.25 cents of Nebraska's 5.5 cent per dollar State sales tax. Twenty-five percent of the funding was specifically designated for spending on the Nebraska Expressway system or federally designated High Priority Corridors, which include the Heartland Expressway in the western panhandle of Nebraska. The remainder will be allocated according to Nebraska Department of Road priorities.

Another effort to provide universal road transportation services to towns and counties throughout rural Nebraska is evident in the Nebraska Highway Fund Allocation. This allocation provides funds to local governments to support maintenance and construction of local roads. The allocation approach implicitly provides extra funding to help rural areas maintain a similar level of service despite higher costs per person served. Specifically, the State Highway Fund Allocation is weighted according to three factors: 1) population, 2) number of vehicle registrations and 3) number of lane miles. The latter factor tends to steer allocation dollars to less densely settled areas given the need for more lane miles per person.

Recent debate about the solvency of the U.S. Postal Service provides another example of the commitment in Nebraska to universal service for smaller rural communities. As part of

planned cost reductions, the U.S. Postal Service was considering closure of thousands of primarily rural post offices throughout the United States and was considering up to 100 rural Nebraska post offices for potential closure. These plans would not have eliminated postal service in rural Nebraska but would have reduced the quality of service. There was widespread disapproval of plans to close rural post offices despite the costs of maintaining these facilities. For example, in the September 15, 2011 *Fort Report*, Nebraska Representative Jeff Fortenberry wrote "My Nebraska House of Representatives colleagues and I have urged the Postmaster General to consider the USPS's obligation to maintain efficient mail delivery to all Americans and the special challenges posed by the closing of post offices in rural communities." In an October 7, 2011 release entitled *Rural Post Offices Are Critical to the Third District*, Congressman Adrian Smith wrote "In April of this year, I, along with my colleagues from Nebraska, sent a letter to the Postmaster General of the USPS urging the agency to account for the impact on local communities when considering the closing or consolidation of a rural mail facility." In a press release on May 3, 2012, Senator Ben Nelson provided the following quotation "Our local post offices play a special role in our communities, keeping us connected to our friends and families, and keeping businesses connected to their customers. They are an important part of our economy, serving every city, suburb and small town in Nebraska." Each of these statements expressed a commitment to providing service to rural areas despite potential savings and each statement anticipated significant impacts on rural communities in the event that service was reduced. Each was an eloquent defense of the principal of universal service, as much as the commitment to the state and local transportation network, and akin to spending to provide broad-based access to health care services in Nebraska.

In the case of health care services, the State of Nebraska also has a series of initiatives to improve access to health care services throughout the State. Both the federal and State governments support the rural system of Critical Access Hospitals by providing cost-based reimbursements (or cost-based reimbursements plus 1% for Medicare) to these smaller, rural hospitals. Reimbursements through both the Medicare and Medicaid programs (Radford, Hamon and Nelligan, 2010),[12] may reflect the higher cost structure found in smaller, rural hospitals. Additional tax dollars devoted to the cost-based reimbursement of rural hospital provide the benefit of more universal access to hospital services for rural residents. A similar approach is used to help locate additional health care professionals in rural areas of the State.

[12] Radford, Andrea, Mike Hamon and Caitlin Nelligan, 2010. "State's Use of Cost-Based Reimbursement for Medicaid Services at Critical Access Hospitals," *Findings Brief, North Carolina Rural Health Care Research & Policy Analysis Center* (April)

The Nebraska Student Loan Program and Nebraska Loan Repayment Program help pay the higher education costs of health care professionals who work for between one and three years in State designated shortage areas, which typically include Nebraska's non-metropolitan counties.[13] Thus, the State of Nebraska utilizes State revenue to ensure more universal health care services to rural Nebraska, in a way to cover the higher per user costs found in rural Nebraska.

B. Importance of Telecommunications Services for Health and Education

Telecommunications services also play a critical role in allowing the delivery of key health care and education services to rural Nebraska. Delivery of these services typically received substantial financial support at the State level in Nebraska; for example, through State aid to education or through Medicaid funding. In this context, support for telecommunications infrastructure through the NUSF can be seen as part of the State funding mechanism for effective delivery of these services. Such education and health care services can substantially enhance the quality of life among rural residents, a key factor in maintaining population levels.

Telecommunications infrastructure is critical in the delivery of telemedicine services to patients both at home and at rural health care clinics. The American Telemedicine Association defines three primary categories of telemedicine services (www.americantelemed.org):

- Specialist referral services
- Patient consultations
- Remote patient monitoring

The first category, specialist referral services, would occur in a clinic setting. Doctors and other primary care providers would utilize the Internet over broadband infrastructure for real-time communications between the specialist, patient, and primary care provider. Broadband infrastructure also could be used to transfer data and images to specialists for physician-to-physician consultations. This feature of telemedicine services substantially reduces patient costs for access to the services of specialists located in urban areas; and by lowering specialty medical costs will increase the likelihood that rural patients will choose to access these services, particularly in a preventative setting.

The other two categories as defined by the American Telemedicine Association improve rural patient access to general medical and diagnostic services, and in settings even closer to home. Patient consultations are defined to include patient consultations with primary or other

[13] http://dhhs.ne.gov/publichealth/Pages/hew_orh_loansstate.aspx

physicians. From a rural clinic, patients communicate in real time via the Internet or a dedicated line with physicians at a different location. This approach substantially lowers the cost for primary care physicians serving a larger geography by reducing or eliminating the need for physicians to visit these rural clinics. Likewise, telemedicine patient consultations could expand the territory served by a physician or even increase the competition between alternative physician groups and health care networks for the business of patients who reside in small communities and the rural countryside.

Remote patient monitoring refers to a set of telemedicine services delivered into the homes of patients. Equipment could be placed in patient homes to monitor vital signs, blood pressure, blood sugar or make other measurements and transmit this information continuously using broadband infrastructure to be monitored by health care professionals. Network reliability is obviously especially critical in the case of remote patient monitoring, pointing to the importance of broadband to the home in providing this service. However, all types of telemedicine services would benefit from the enhanced reliability of broadband service.

Broadband infrastructure also can be central to delivering educational content to students and other residents in rural communities. For example, distance learning course opportunities supported by broadband infrastructure allow students in rural settings to participate in advanced placement or language courses that are not offered at their local school. Such improved access has potential to address a critical issue as participation rates in advanced placement courses are often much lower among rural students. Alger (2011)[14] notes research that rural students nationwide are one-third as likely to enroll in an advanced placement course as suburban or urban students. Broadband infrastructure is also essential to support streaming videos and lectures that are a critical in taking on-line college courses (Kuttner, 2012).[15] Post-secondary courses, in particular, are likely to be delivered in the home, necessitating home access to broadband infrastructure. However, on-line courses can be a component of education delivery for home-schooled students and could also be an option for a portion of the courses for students who attend public school. Broadband technology also can be critical in providing rural students access to supplementary curriculum and study materials available from Nebraska's Virtual School program (Alger, 2011).

[14] Alger, Vicki, 2011. Virtual Schools: The Vital Need for Virtual Schools in Nebraska. Platte Institute for Economic Research.

[15] Kuttner, Hans, 2012. *Broadband for Rural America: Economic Impacts and Opportunities*, Hudson Institute Economic Policy/Briefing Paper Prepared for the Economic Summit on the Future of Rural Communications, October.

VI: Summary

This Report by the University of Nebraska-Lincoln Bureau of Business Research provides a broad-based analysis of the role of universal service and the NUSF to the competitiveness of rural businesses and communities, especially in light of the critical role of rural businesses in the Nebraska economy. A key finding is that rural agricultural and non-agricultural businesses play a critical role in supporting employment and business activity in both trade center communities and in the metropolitan areas of Omaha and Lincoln. Rural businesses support thousands of jobs in the two metropolitan areas. What is more, access to the types of cutting edge services afforded by broadband infrastructure is an important factor influencing the growth of rural business. We find that investment in more advanced broadband services is correlated with business income, business location, education levels and the presence of young adults in rural Nebraska communities. Further, State and federal Universal Service Funds play a key role in the development of broadband infrastructure within small towns and the surrounding rural areas of Nebraska. Estimates indicate that the level of investment would decline by nearly 50% without support from these Universal Service Funds. These benefits may be the reason that the State of Nebraska has maintained a commitment to ensure universal access to advanced telecommunications and information services to rural Nebraska.

References

Vicki Alger, 2011. Virtual Schools: The Vital Need for Virtual Schools in Nebraska. Platte Institute for Economic Research.

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Radford, Andrea, Mike Hamon and Caitlin Nelligan, 2010. "State's Use of Cost-Based Reimbursement for Medicaid Services at Critical Access Hospitals," *Findings Brief, North Carolina Rural Health Care Research & Policy Analysis Center* (April)

Thompson, Eric, Bruce Johnson, and Anil Giri, 2012. *The 2010 Economic Impact of the Nebraska Agricultural Production Complex*, Department of Economics, Report 192 (June)

Appendix 1

About the UNL Bureau of Business Research and Key Personnel

A. The Bureau of Business Research

The Bureau of Business Research is a leading source for analysis and information on the Nebraska and Great Plains economy. The Bureau conducts both contract and sponsored research on the economy of states and communities including: 1) economic and fiscal impact analysis; 2) models of the structure and comparative advantage of the current economy; 3) economic, fiscal, and demographic outlooks, and 4) assessments of how economic policy affects industry, labor markets, infrastructure, and the standard of living. The Bureau also competes for research funding from federal government agencies and private foundations from around the nation and contributes to the academic mission of the University of Nebraska-Lincoln through scholarly publication and the education of students. The Bureau website address is www.bbr.unl.edu.

B. Key Personnel

Dr. Eric Thompson – Principal Investigator

Dr. Eric Thompson will be the principal investigator on this project. Dr. Thompson is the Director of the Bureau of Business Research and an Associate Professor of Economics in the College of Business Administration at the University of Nebraska-Lincoln. Dr. Thompson has conducted a broad group of economic impact studies including economic impact studies of the Sandhill Cranes migration, the Nebraska child care industry, the Omaha Zoo, the Nebraska winery and grape growing industry, Husker Harvest Days, and the UNL Athletic Department. Dr. Thompson also works on demographic projections and analyses of economic development programs for Nebraska and cities in Nebraska. He also has conducted numerous economic studies for the Lincoln Department of Economic Development, the Omaha Chamber of Commerce, the Nebraska Department of Economic Development, various Nebraska industries, and Nebraska tourism attractions. Dr. Thompson's research has received support from the United States Department of Labor, the United States Small Business Administration, the Robert Wood Johnson Foundation, the Center for Economic Analysis, the Nebraska Health and Human Services System, as well as Lincoln, Omaha, and Nebraska organizations and

agencies. In his previous employment, Dr. Thompson served as the Director of the Center for Business and Economic Research and a Research Associate Professor of Economics at the University of Kentucky. Dr. Thompson received his Ph.D. in agricultural economics from the University of Wisconsin-Madison in 1992. His research fields include urban and regional economics, economic forecasting, and state and local economic development. His research has been published in *Regional Science and Urban Economics*, the *Journal of Regional Science*, the *American Journal of Agricultural Economics*, the *Journal of Cultural Economics*, and the *Economic Review of the Federal Reserve Bank of Cleveland*.

Director Jeff Pursley – Co-Investigator

Jeff Pursley is an economic consultant based in Lincoln with substantial experience working in the telecommunications industry in both the private and public sector. Mr. Pursley's research has included the modeling of generation of electricity through the use of wind resources by the private sector in Nebraska as well as measuring the energy efficiency savings associated with the Nebraska Energy Office's Home Weatherization and Energy Loan programs. He has also developed statistical analyses comparing the results of the Federal Communications Commission's CQBAT model, used for federal universal service funding purpose, for insular and non-insular price cap carriers. His work in the public sector includes serving on the staff of the NPSC. Mr. Pursley is in the process of finishing his master's thesis for a Master of Arts degree in economics.

Economic Benefits of Broadband Deployment In Rural Areas
Federal Register / Vol. 78, No. 25 / Wednesday, February 6, 2013
Rural Broadband Access Loans and Loan Guarantees
AGENCY: Rural Utilities Service, USDA.
ACTION: Final rule.

Bringing broadband services to rural areas does present some challenges. Because rural systems must contend with lower household density than urban systems, the cost to deploy fiber-to-the-home (FTTH) and digital subscriber line (DSL) systems in urban communities is considerably lower on a per household basis, making urban systems more economical to construct. Other associated rural issues, such as environmental challenges or providing wireless service through mountainous areas, also can add to the cost of deployment. Notwithstanding these challenges and obstacles, a recent analysis by USDA's Economic Research Service concluded that broadband investment in rural areas yields significant economic and socio-economic gains:

Analysis suggests that rural economies benefit generally from broadband availability. In comparing counties that had broadband access relatively early (by 2000) with similarly situated counties that had little or no broadband access as of 2000, employment growth was higher and nonfarm private earnings greater in counties with a longer history of broadband availability. By 2007, most households (82 percent) with in-home Internet access had a broadband connection. A marked difference exists, however, between urban and rural broadband use--only 70 percent of rural households with in-home Internet access had a broadband connection in 2007, compared with 84 percent of urban households. The rural-urban difference in in-home broadband adoption among households with similar income levels reflects the more limited availability and affordability of broadband in rural settings.

Areas with low population size, locations that have experienced persistent population loss and an aging population, or places where population is widely dispersed over demanding terrain generally have difficulty attracting broadband service providers. These characteristics can make the fixed cost of providing broadband access too high, or limit potential demand, thus depressing the profitability of providing service. Clusters of lower service exist in sparsely populated areas, such as the Dakotas, eastern Montana, northern Minnesota, and eastern Oregon. Other low-service areas, such as the Missouri-Iowa border and Appalachia, have aging and declining numbers of residents. Nonetheless, rural areas in some States (such as Nebraska, Kansas, and Vermont) have higher-than expected broadband service, given their population characteristics, suggesting that policy, economic, and social factors can overcome common barriers to broadband expansion.

In general, rural America has shared in the growth of the Internet economy. Online course offerings for students in primary, secondary, post-secondary, and continuing education programs have improved educational opportunities, especially in small, isolated rural areas. And interaction among students, parents, teachers, and school administrators has been enhanced via online forums, which is especially significant given the importance of ongoing parental involvement in children's education.

Telemedicine and telehealth have been hailed as vital to health care provision in rural

communities, whether simply improving the perception of locally provided health care quality or expanding the menu of medical services. More accessible health information, products, and services confer real economic benefits on rural communities: reducing transportation time and expenses, treating emergencies more effectively, reducing time missed at work, increasing local lab and pharmacy work, and providing savings to health facilities from outsourcing specialized medical procedures. One study of 24 rural hospitals placed the annual cost of not having telemedicine at $370,000 per hospital. (See http://www.ers.usda.gov/Publications/ERR78/ERR78.pdf, at pages iv and 24.)

Most employment growth in the U.S. over the last several decades has been in the service sector, a sector especially conducive for broadband applications. Broadband allows rural areas to compete for low- and high-end service jobs, from call centers to software development, but does not guarantee that rural communities will get them. Rural businesses have been adopting more e-commerce and Internet practices, improving efficiency and expanding market reach. Some rural retailers use the Internet to satisfy supplier requirements. The farm sector, a pioneer in rural Internet use, is increasingly comprised of farm businesses that purchase inputs and make sales online. Farm household characteristics such as age, education, presence of children, and household income are significant factors in adopting broadband Internet use, whereas distance from urban centers was not a factor. Larger farm businesses are more apt to use broadband in managing their operation; the more multifaceted the farm business, the more the farm used the Internet.\1\

\1\ Broadband Internet's Value for Rural America. Peter Stenberg, Mitch Morehart, Stephen Vogel, John Cromartie,Vince Breneman, and Dennis Brown.

An analysis based on approximately $1.8 billion in approved loans in the Farm Bill Broadband Program (based on multiple technology platforms) yielded the following results (numbers have been rounded):

Number of communities funded: 2,800
Average cost per community: $640,000
Total subscribers: 1.3 million

Most recently, the agency has concluded funding the American Recovery and Reinvestment Act (Recovery Act) Broadband Initiatives Program (BIP) that financed the same types of facilities and entities that are funded under this Farm Bill program. The Recovery Act authorized RUS to issue loans and grants to projects that extend broadband service to unserved and underserved rural areas. The funding provided by the Recovery Act is increasing the availability of broadband and stimulating both short- and long-term economic progress. RUS BIP completed two funding rounds, making a significant investment in projects that will enhance broadband infrastructure in scores of rural communities. This represents a critical investment, designed to rebuild and revitalize rural communities. Without this funding, many communities could not cover the costs of providing broadband service to homes, schools, libraries, healthcare providers, colleges, and

other anchor institutions.

RUS awarded $3.4 billion to 297 recipients in 45 States and 1 U.S. territory for infrastructure projects. Eighty-nine percent of the awards and 92 percent of the total dollars awarded are for 285 last-mile projects ($3.25 billion), which will provide broadband service to households and other end users. Four percent of the awards and five percent of the total dollars awarded are for 12 middle-mile projects ($173 million) that will provide necessary backbone services such as interoffice transport, backhaul, Internet connectivity, or special access to rural areas. The projects funded will bring broadband service to 2.8 million households, reaching nearly 7 million people, 364,000 businesses, and 32,000 anchor institutions across more than 300,000 square miles. These projects also overlap with 31 tribal lands and 124 persistent poverty counties, traditionally the most costly to serve areas.

As noted in the ERS study, rural areas with dispersed populations or demanding terrain generally have difficulty attracting broadband service providers because the fixed cost of delivering broadband service can be too high. Yet broadband is a key to economic growth. For rural businesses, broadband gives access to national and international markets and enables new, small, and home-based businesses to thrive. Broadband access affords rural residents the connectivity they need to obtain healthcare, education, financial, and many other essential goods and services.

Catalog of Federal Domestic Assistance

The Catalog of Federal Domestic Assistance (CFDA) number assigned to this program is 10.886, Rural Broadband Access Loans and Loan Guarantees. The Catalog is available on the Internet and the General Services Administration's (GSA's) free CFDA Web site at http://www.cfda.gov.

Background

A. Introduction

The Agency improves the quality of life in rural America by providing investment capital for deployment of rural telecommunications infrastructure. Financial assistance is provided to rural utilities; municipalities; commercial corporations; limited liability companies; public utility districts; Indian tribes; and cooperative, nonprofit, limited-dividend, or mutual associations. In order to achieve the goal of increasing economic opportunity in rural America, the Agency finances infrastructure that enables access to a seamless, nationwide telecommunications network. With access to the same advanced telecommunications networks as its urban counterparts, especially broadband networks designed to accommodate distance learning, telework, and telemedicine, rural America will eventually see improving educational opportunities, health care, economies, safety and security, and ultimately higher employment. The Agency shares the assessment of Congress, State and local officials, industry representatives, and rural residents that broadband service is a critical component to the future of rural America. The Agency is committed to ensuring that rural America will have access to affordable, reliable, broadband services and to provide a healthy, safe, and prosperous place to live and work.

B. Regulatory History

On May 13, 2002, the Farm Security and Rural Investment Act of 2002, Public Law 107-171 (2002 Farm Bill) was signed into law. The 2002 Farm Bill amended the Rural Electrification Act of 1936 to include Title VI, the Rural Broadband Access Loan and Loan Guarantee Program (Broadband Loan Program), to be administered by the Agency. Title VI authorized the Agency to approve loans and loan guarantees for the costs of construction, improvement, and acquisition of facilities and equipment for broadband service in eligible rural communities. Under the 2002 Farm Bill, the Agency was directed to promulgate regulations without public comment. Implementing the program required a different lending approach for the Agency than it employed in its earlier telephone program because of the unregulated, competitive, and technologically diverse nature of the broadband market. Those regulations were published on January 30, 2003.

In an attempt to enhance the Broadband Loan Program and to acknowledge growing criticism of funding competitive areas, the Agency proposed to amend the program's regulations on May 11, 2007 at 72 FR 26742 to make eligibility of certain service areas more restrictive than set out in the 2002 Farm Bill. In addition to eligibility changes, the proposed rule included, among others, changes to persistent problems the Agency had encountered while implementing the program over the years, especially regarding equity requirements, the market survey, and the legal notice requirements. As the Agency began analysis of the public comments it received on the proposed regulations, the Food, Conservation, and Energy Act of 2008, more commonly known as the 2008 Farm Bill, was working its way through Congress. The proposed rule and key aspects of the public comments were shared with Congress during its deliberations, and the majority of the proposed changes in the proposed rule were incorporated into the legislation, with some modifications. For instance, the proposed rule lowered the equity requirement from 20 percent of the loan value to 10 percent. Congress enacted that change.

Other changes the Congress incorporated included several new restrictions not found in the 2002 Farm Bill. These were in response to growing public criticism of federally funded competition. First, funding is restricted in areas that contain 3 or more incumbent service providers, which is defined as serving not less than 5 percent of the proposed service area for each existing service provider. Second, a requirement was added that at least 25 percent of the households in the proposed service area do not have access to more than one incumbent service provider. And third, for incumbent service providers that were merely upgrading the quality of broadband service in their existing service territory, the prior restrictions on competition (ie., 3 or more providers) would be waived.

In response to the debate on what was rural, the 2008 Farm Bill relaxed the restriction to allow urbanized areas that were not adjacent and contiguous to areas with a population of more than 50,000 inhabitants to be eligible for funding. And lastly, the 2008 Farm Bill incorporated the concept of not requiring market studies for applicants that relied on a penetration rate of less than 20 percent for the loan to be feasible.

In the public interest of having a Broadband Program in place to quickly address the needs of the hundreds of applications that were not funded under the Recovery Act, and in light of the fact that the great majority of changes herein are mandated by the 2008 Farm Bill, or have been proposed in the Agency's prior rule, put out for comment, the Agency proceeded forward with

certain changes to the Broadband Loan Program by publishing an interim rule in the Federal Register at 76 FR 13770, on March 14, 2011.

C. Comments and Responses

In its Interim Rule, published in the Federal Register March 14, 2011 at 76 FR 13770, the agency requested comments regarding the new procedures implementing the 2008 Farm Bill. The agency received seven sets of comments from the following organizations/individuals:

National Cable & Telecommunications Association
Eastern Rural Telecom Association
United States Telecom Association
The Associations (Western Telecommunications Alliance; Organization for the Promotion and Advancement of Small Telecommunications Companies; and National Telecommunications Cooperative Association)
Monte R. Lee and Company
XATel Communications
Jaclyn Bee

These comments have been summarized and addressed below:

Broadband Lending Speed

Comment: Several respondents took issue with the definition of Broadband Lending Speed. The respondents asserted that the differentiation in speeds proposed between wireline and wireless technologies is in violation of the agency's ``technology neutral'' mandate and should be eliminated.

Several respondents also stated that the initial speeds set forth in the Notice of Funds Availability (NOFA) are too low and must be increased to keep pace with the rapidly growing need for increased consumer bandwidth demands. One respondent said the bifurcation between wireline speed and wireless speed would create a ``rural--rural divide,'' subjecting some areas, mainly the most rural, to a lower standard.

Response: With regard to the charge that the agency is in violation of its ``technology neutral'' mandate, RUS believes, in fact, that it is protecting this mandate by establishing different performance thresholds based on the limitations of different technologies. Specifically, in the preamble to the interim rule published in the Federal Register March 14, 2011 (76 FR 13770), the agency states: ``In order to treat all emerging technologies equally, the Agency may designate a different broadband lending speed for fixed and mobile broadband service.'' Further, this policy is consistent with the statutory directive provided in the 2008 Farm Bill (Pub. L. 110-234): ``The Secretary shall not establish requirements for bandwidth or speed that have the effect of precluding the use of evolving technologies appropriate for rural areas.'' One of the intents of this provision, as interpreted by the agency, is to allow financing in areas where it is financially unfeasible to build wireline facilities, by allowing the agency to fund a more economical (if shorter term) solution, such as the expansion of mobile broadband service. To leave these areas

stranded will clearly produce the undesirable effect of a ``rural--rural divide.''

With regard to the overall Broadband Lending Speeds being set to low (or slow), this definition establishes a minimum threshold, not a maximum. Further, the agency will continue to monitor and assess technological advances and bandwidth demands and adjust the definition accordingly.

Prioritization of Application Processing

Comment: One respondent recommended that the projects that exhibited the greatest ``scalability'' should be given the greatest priority in the processing queue--defining scalability as ``those [projects] that can be easily and relatively inexpensively upgraded to reflect increased consumer demand for more bandwidth.'' Another respondent objected to the prioritization section of the rule, stating that ``RUS should narrow the scope of the program by providing funding for only areas that are Priority 1 or 2.'' In addition, the respondent requests that RUS count all providers in a proposed service territory when determining eligibility and prioritization, not just those providers that responded to the public notice. Further, this respondent said ``RUS also should count new broadband services that plan [emphasis added] to launch within the next 12 months, e.g., 4G wireless services.''

Response: Achieving a fair and unbiased prioritization method is difficult at best, particularly in an industry as diverse in service providers and technologies as the broadband industry is. The agency has clearly placed the highest priority on applications proposing to serve unserved areas. Further, those areas where three-quarters of the households do not have access to broadband service are the 2nd level of priority. Beyond that, applications with a varying mix of unserved and served households and that are within the statutory requirements (between 25 percent and 74 percent served) will be processed as received. As can be seen, the agency has clearly established a prioritization regime that targets the greatest proportion of unserved households.

Regarding the issue of factoring ``scalability'' into prioritization process, the agency does not believe this is practicable in keeping with its ``technology neutral'' mandate. Specifically, different technologies have different degrees of evolution capabilities and hence different ``scalability'' requirements that are not comparable.

With regard to the number of incumbent service providers within a proposed service area, the agency intends to use all available resources to identify incumbents, including knowledge of the existing territory through field staff visits, as well as state and federal mapping resources, such as the National Broadband Map. When determining whether an area is eligible for financing, the agency will rely on responses to the applicants' proposed funded service area maps from incumbents. The agency through its own competitive analysis may identify other providers that did not respond to the public notice. In determining the feasibility of a project in such a situation, the agency would of course factor in all identified, non-respondent service providers.

Finally, attempting to consider future deployment of a certain level of broadband service is not practical. Relying on advertised deployment has proven to be inaccurate in many instances.

Public Notice Process (Notification)

Comment: One respondent objected to the 30-day notification window within which existing service providers can provide notice that they are providing services in the applicant's proposed

service territory. Specifically, the respondent stated that 30 days was not sufficient enough time to conduct a manual search of the agency's database to determine on an ongoing basis if indeed an application had been filed to serve an existing entity's territory. The respondent recommends that either the agency increase the timeframe to 45 to 60 days or create an internet-based subscription service that would automatically alert subscribers to that service that an application had been filed in a particular service territory.

Response: The agency has established a subscription service. See www.http://broadbandsearch.sc.egov.usda.gov/.

RUS Protection of Previously Funded Entities

Comment: One respondent was supportive of the policy of ``not loaning against'' existing RUS borrowers. One respondent strongly opposed this policy, stating this ``* * * prohibition on funding areas served by existing RUS recipients demonstrates that the agency recognizes that subsidized entry has negative consequences for incumbent providers serving the same area.''

Response: The agency's policy of ``not lending against itself'' is primarily designed to protect taxpayer investment in publicly funded areas. However, borrowers are expected to maintain investment levels sufficient to ensure that borrowers provide modern broadband services. If it becomes apparent that previously funded borrowers are not providing adequate broadband service and meeting customer demands, the agency will revisit this policy. So, if necessary in order to expand access to an area where an RUS borrower is not providing adequate broadband service, the Agency may lend against its borrower. Similarly, this is the reason why the Agency may make loans where an existing entity is providing some broadband service but limits its service territory only to the more dense areas (in town). A loan that leverages in town customers revenues in order to expand service beyond town limits can achieve greater access for more sparsely populated rural areas.

Prompt Review of Loan Applications

Comment: One respondent called on the agency to ``review applications in a timely fashion.'' Specifically, the respondent supported a 180-day deadline for application processing.

Response: The quality and ``completeness'' of applications play a vital role in the ability of the agency to promptly process loans. Those applications that are complete and contain all of the required supporting information and documentation can be processed more quickly. Applications with missing information, for example, cause major delays. The Agency, through this rulemaking, has clearly established what constitutes a complete application. All other applications will be promptly returned. RUS strives to offer the best customer service and will continue its goal to provide shorter application processing times. Both the agency and the applicants share the responsibility for ensuring prompt application processing.

Additional Cash Requirement

Comment: One respondent, while recognizing ``the need to require additional constraints on newly formed and under performing companies,'' stated that allowing only 50 percent of the projected revenues as a contribution to the ``Additional Cash Requirement'' provision was too burdensome and most likely would result in infeasible applications. The respondent

recommended that a leniency test should be established for existing companies that project negative cash flow for material reasons (such as tax planning, cash used for other businesses, etc.). In addition, the respondent expressed concern regarding the costs of video content, arguing that, for many rural providers, video service is not a revenue producer, but rather is offered as a means to increase overall subscriber penetration rates. As such the respondent proposed eliminating 50 percent of the expense projection associated with providing video service when determining the additional cash requirements.

Response: Rather than penalizing start-ups or companies experiencing shortages of cash flow, the additional cash requirement provision allows applicants that are in a weak financial situation to maintain eligibility by providing a method for augmenting their security for the project and increasing the likelihood that the project can be completed. Hence, it provides an avenue for moving less stable projects forward.

With regard to video expenses, the agency sees no reason to arbitrarily ``reduce'' any expense category. In fact, for the reason offered by the respondent, if revenues to be derived by the incurrence of such an expense are insufficient to cover that expense, decreasing the expense category in the pro forma only inflates or overstates profits in what may be an otherwise unprofitable proposal.

Government Subsidized Competition

Comment: One respondent objected strongly to what it referred to as the ``continuing problem of RUS subsidizing broadband deployment in areas where other providers already offer broadband service.'' The respondent argues that in a competitive environment, ``a program in which a government agency funds one set of competitors against other companies that have invested private capital to provide the same service in the same geographic areas is wholly inappropriate and should be terminated.'' The respondent recommended that a competitive award process be used to target unserved areas with grant funds--those being areas that cannot on their own support a business case to attract investment. The respondent also noted that loans were allowed to be made in areas where two existing providers are offering service, because the statute (Farm Bill) provides for such a scenario. Citing an extreme, hypothetical example, the respondent noted that even though one provider may be currently offering service to 100 percent of an area and the other provider is offering service to 25 percent of the same area, the provisions of the Farm Bill would enable a third provider to be funded in the same area. Finally, the respondent stated that ``RUS should amend the rules to make clear that [loans to companies for] upgrades [as opposed to new service territory] are subject to the same requirements as [for loans for] initial builds.'' The respondent requested that this perceived ``loophole'' be closed.

Response: At its base, the number of incumbent service providers merely establishes whether a proposed service territory is eligible or not. It in no way implies that funds would be awarded, since other factors affecting feasibility (like competition and service offerings) must also be considered. In the example offered (however impracticable), most likely a loan would not be feasible unless the incumbents' services were of such poor quality that a new entrant would be welcome and would easily take away subscribers. The respondent also recommends that the agency use grant funds to target those areas deemed undesirable and left

unserved by incumbents, noting that a ``business case'' cannot be made for these areas. First, the 2008 Farm Bill does not provide any grant authority for the Broadband Program. This is precisely why it is permissible for applicants to be able to provide service where some service already exists. The Treasury rate government financing provides for continued, long-term investment while leveraging private capital in a fiscally responsible manner. The ability of an applicant to reach out to long ignored, unserved households outside ``the business case'' of incumbents relies on those applicants finding a balance between low cost and high cost service territories, which will create some duplicative (but necessary) service areas.

With regard to upgrades within an incumbent's own service territory, this allows those areas to keep pace with technology improvements and to upgrade facilities based on customer demand. Again, this (like the number of service providers) is an eligibility criterion. It does not guarantee funding. Should the competitive environment not support a new loan, the loan would not be made.

Discount USF and ICC Revenues in Feasibility Analysis

Comment: One respondent encourages the agency to ``reconsider how it evaluates the business case for applicants that are heavily dependent on high-cost universal service support and intercarrier compensation'' revenues. The respondent argued that ``the way that RUS considers USF receipts takes on even more urgency in light of the FCC's proposals to reform the high-cost universal service support regime.''

The respondent encourages RUS to discount the amount of any high-cost support when assessing financial feasibility. The respondent had similar concerns with respect to intercarrier compensation revenues.

Further, the respondent encouraged RUS not to award any new loans until the interim rule is final and the FCC moves forward and presumably resolves the USF/ICC reforms.

Response: The Agency is working closely with the FCC to ensure that rural communities continue to receive access to broadband services. In light of recent actions by the FCC, the Agency is revising its underwriting procedures to correspond with new FCC principals regarding universal service revenues.

Navigant Study

Comment: One respondent asserts that ``the interim rules perpetuate many of the same problems that have plagued the Broadband Loan Program for the last decade and, absent changes, will not be an effective mechanism for achieving the national goal of universal broadband activity.'' The respondent claims documentation in support of this in a report prepared by Dr. Jeffery Eisenach and Kevin Caves of Navigant Economics. The report was issued as an assessment of the American Reinvestment and Recovery Act (Recovery Act) Broadband Initiatives Program (BIP). The respondent, in referencing the report, claims that ``RUS consistently has provided broadband funding to entities in areas where broadband already is made available by cable operators and other broadband providers without government subsidy.'' In addition, the report states that RUS, in its Recovery Act program, defined eligibility for BIP funding based on the percentage of geographic area that was unserved, rather than the percentage of households that were unserved.

Response: As the study was related to the BIP program, its findings are not applicable to this final rule preceeding. The BIP program was a one-time funding opportunity under the Recovery Act and has concluded. No new applications or financing will occur under that program. However, since the issues raised imply that the RUS, in its implementation of this final rule, is acting in a manner inconsistent with its statute implementing the Farm Bill program, we address the concerns raised in the report below.

The study, Evaluating the Cost-Effectiveness of RUS Broadband Subsidies: Three Case Studies, suffers from a number of fundamental flaws:

1. The study frequently misquotes, misinterprets, or misattributes statutory and regulatory language associated with rural broadband development.

2. The study creates a more lenient definition of what it considers ``served'' than is used by RUS, or the FCC to support its claim that BIP projects provide duplicative service.

3. The study relies heavily on data that became available only after the BIP application evaluation process had to be completed.

4. The study employs questionable metrics to determine key statistical data. These flaws, individually and when taken together, produce meaningful inaccuracies in both the evidence and arguments in the study. When claims within the study are compared to the relevant legislation and/or information, it is clear that the study's conclusion--that RUS' ARRA broadband program served areas that it should not have--is inaccurate. RUS complied with all applicable legislation using information available at the time of the application assessments.

1. Misrepresentation of ARRA's Goals

The study claims: ``ARRA requires that NTIA and RUS limit funding to `unserved' or `underserved' areas, and specifically instructs RUS to give priority to unserved areas'' (p. 2). The study goes on to state that BIP provides duplicative service to areas that already have broadband access, and therefore RUS did not limit funding to unserved and underserved areas.

The claim above misrepresents ARRA's requirements regarding broadband development and RUS' administrative role under BIP. ARRA does require that BIP funds be used to serve areas with limited access to broadband service, requiring that ``at least 75 percent of the area to be served by a project receiving funds, grants, or loan guarantees shall be in a rural area without sufficient access to high speed broadband service to facilitate rural economic development'' However, it does not limit funding to unserved and underserved areas.\2\ In fact, ARRA explicitly allows up to 25 percent of the project area to be in areas that have broadband service. When evaluating BIP applications, RUS used available information to follow ARRA guidelines to ensure that all service areas complied with this requirement.

\2\ Unserved and underserved are not, as the report implies, Recovery Act terms. They were defined and used by RUS in BIP NOFAs 1 and 2.

In addition, ARRA provides ``that priority for awarding such funds shall be given to project applications for broadband systems that will deliver end users a choice of more than one service provider.'' Awarding funds to provide a choice of more than one service provider will, by

definition, involve funding projects in areas where some service already exists.

2. Lenient and Misattributed Definition of Unserved

The study exaggerates the extent of duplicative services by using a definition of broadband speed that is not consistent with ARRA's economic development goals.

The study applies a misleading label of ``RUS definition'' to the notion that an unserved housing unit is: ``an occupied housing unit not passed by (a) wireline-based broadband services (cable or DSL); or (b) fixed wireless broadband services.'' (p. 19) \3\

\3\ The study's mislabeling of the ``RUS definition'' of ``unserved'' does not reference either NOFA, both of which explicitly define the term. Instead, this misattributed definition is supported in footnote 7 of p. 3 of the study: ``The fixed wireless broadband services upon which we base coverage estimates satisfy the 768 kbps/200 kbps standard, and therefore are included in our analyses of households served under the RUS definition''.

However, this definition is incorrect. BIP NOFAs 1 and 2 (74 FR 33104, 7/9/09 and 75 FR 3820, 1/22/10, respectively) offer different definitions of ``unserved'', but neither excludes mobile broadband:

NOFA #1 definition: ``composed of one or more contiguous census blocks where at least 90% of households lack access to facilities-based, terrestrial broadband service, either fixed or mobile, at the minimum broadband speed: [at least 768 kbps downstream and at least 200 kbps upstream to end users, or providing sufficient capacity in a middle mile project to support the provision of broadband service to end users].'' \4\

\4\ See Federal Register, 74 FR 33104, Notices, Department of Agriculture Rural Utilities Service RIN 0572-ZA01, Broadband Initiatives Program, definitions for ``unserved'' and ``broadband''. Hereafter referred to as NOFA 1.

NOFA #2 definition: ``a service area with no access to facilities-based terrestrial broadband service, either fixed or mobile, at the minimum broadband transmission speed [at least 768 kbps downstream and at least 200 kbps upstream to end users, or providing sufficient capacity in a middle mile project to support the provision of broadband service to end users]. A premises has access to broadband service if it can readily subscribe to that service upon request.'' \5\

\5\ See Federal Register, 75 FR 3820, Notices, Department of Agriculture Rural Utilities Service RIN 0572-ZA01, Broadband Initiatives Program, definitions for ``unserved'' and ``broadband''. Hereafter referred to as NOFA 2.

RUS' definitions of unserved are not based on technology, as implied by the incorrect definition stated in the study. Instead, RUS's funding decisions were based on a minimum broadband speed, below which an area is considered to be without ``sufficient access to high

speed broadband service to facilitate rural economic development." \6\

\6\ See the American Recovery and Reinvestment Act of 2009.

In developing the BIP program, RUS determined that broadband speeds below 768 kbps downstream and 200 kbps upstream to end users would not be suitable for economic development purposes.\7\ BIP funding decisions were made using information available at the time of application review on the existence of service availability at speeds reaching at least this minimum level of service. The study's analyses, however, do not utilize data for service availability at this minimum speed. Instead, the study's analyses accept a 600 kbps threshold that does not meet the minimum speed determined to be suitable for economic development purposes. Tables Four, Six, and Eight of the study and the associated Figures Three, Seven, and Ten are thereby all inaccurate because they count services at speeds under 768/200 kbps.

\7\ This standard was established following the FCC's definition of ``Basic Broadband'' service, defined as a connection speed tier of between 768Kbps and 1.5Mbps. See FCC 08-88, June 12, 2008, Statement of Chairman Kevin J. Martin, Pg. 43.

The study further asserts that 3G technology will soon be updated to exceed the FCC established 768 kbps threshold, and therefore should have been included in RUS' considerations regardless of the technology's current speed. However, a fair and reasonable evaluation of applications by RUS could not have been made using future, proposed, uncommitted investment possibilities.

3. Information Available After the BIP Application Evaluation Process

The following tables and figures cite information that became available after the BIP application evaluation process; these graphics are the foundation for the study's arguments and conclusions:

Tables Four, Six, and Eight of the study make use of data from NTIA's National Broadband Map (NBM), which was not available at the time of the BIP application evaluation process.

Figure Six cites the Kansas Corporation Commission, Report to the Legislature Regarding the Availability of Broadband Services in the State of Kansas (January 2011), which is after the BIP application evaluation process was complete. Warren's Cable Factbook is cited for Figures 2, 3, 5, and 7. The study does not include the date of the edition used. The latest edition for 2011 was released in December 2010.

Information that became available after completion of the application evaluation process is not relevant for comparison to BIP funding decisions, which were made using the information available at the time of application review. The latest information can help inform future funding decisions under other programs, but are not relevant for assessing the quality or results of the BIP decision making processes.

4. Questionable Analytical Methodologies

In order to estimate the cost of the BIP program to the taxpayer, the report uses a ``cost per incremental home passed'' metric. Costs did not involve only extensions of existing networks, for which a cost per incremental home passed metric might be appropriate. Instead, the entire scope of the BIP-funded network's coverage must be considered to accurately evaluate the cost per home passed. The ``cost per incremental home passed'' metric would only be appropriate if an applicant were an incumbent provider applying for funding to extend and/or enhance its network to reach unserved or underserved areas. However, none of the three awards examined in the study meet this condition.

Another approach the study uses to calculate the ``actual taxpayer cost'' is based on the interest rates charged to the awardees on the BIP loans. The study argues that the taxpayer is losing the difference in interest revenue between what could have been charged at the market rate and the actual interest rate being charged to awardees. The interest rate charged by RUS is ``equal to the cost of borrowing to the Department of Treasury for obligations of comparable maturity''.\8\

This adheres to the ARRA requirement that loans carry the interest rate as defined in the Farm Bill 2008. The study's approach reinterprets the law and suggests that RUS could behave like a commercial lending institution by charging market rates on the BIP loans. By using a much higher interest rate to calculate the total taxpayer cost, the study thereby inflates the cost per household passed in Tables Five, Seven, and Nine. As it is, the cost per total household passed of each project in the study is lower than both the RUS and FCC benchmarks.

\8\ See NOFA 1 and NOFA 2.

The study's method for estimating DSL boundaries is similarly faulty. Appendix 1 explains that DSL boundaries were determined by ``generating a 12,000 foot radius'' around ``the location of the dominant central office of each wirecenter.'' Such a projected radius model cannot be used to predict estimate the number of DSL subscribers that can be supported by in-place equipment. The 12,000 foot radius is technically arbitrary and no useful conclusions about potential service availability can be drawn from it alone. The study supplies no facts about DSL service availability, penetration rates, or connection speeds, nor does it supply any facts about route mileage, wire gauge, line bridging and tapping, or any other influencing technical elements.

To estimate service coverage for fixed wireless broadband and mobile wireless broadband, the study relies exclusively on carriers' advertised coverage maps. RUS opened and advertised a public comment period for any and all existing providers and other stakeholders to provide information on coverage within the areas proposed by BIP applicants. RUS received many public comment responses, however it did not take those comments from carrier providers or other stakeholders purely at face value. Instead, RUS also gathered on-the-ground data and observations. Moreover, the study's analytical approach did not differentiate between a service provided via a wireless carrier's owned-and-operated network and service that is provided through roaming agreements with third-party owned networks. This flaw undermines the study's

conclusions that depend on various mobile wireless carriers' statements that 3G and 4G upgrades are a fait accompli; many of these rural networks' owners would likely have to find funding and develop business cases on their own before they could (or would) be upgraded.

5. Conclusion and Summary

The study's critique is seriously flawed. Despite an obvious effort to ``cherry pick'' three extreme case studies, the source material cited in this response demonstrates that the study did not successfully identify any inconsistencies between RUS' administrative decisions and the ARRA legislation or broadband availability data at the time of application evaluations.

Miscellaneous

Comment: One respondent, while noting the benefits of internet access, stated that they are benefits ``of a more affluent society that is not currently in trillions of dollars in debt.'' The respondent requests that, considering the high costs of program administration, implementation should be delayed.

Response: The agency appreciates the respondent's concerns. However, broadband deployment will increase economic development, raise revenues and create jobs. These benefits far outweigh the initial capital expenditures of building this critical infrastructure today.

Comment: One respondent took issue with MEConnect Authority in Maine.

Response: The respondent should contact the appropriate state officials responsible for administering that program. The Rural Utilities Service is not a regulatory agency.