

BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

RECEIVED

In the Matter of the Nebraska Public)
Service Commission, on its own motion,)
to consider revisions to the universal)
service fund contribution methodology.)

Application No. NUSF-100

MAR 24 2017

Nebraska
Public Service Commission

**DIRECT TESTIMONY OF EDIT KRANNER ON BEHALF OF THE
NEBRASKA RURAL INDEPENDENT COMPANIES**

I. INTRODUCTION - WITNESS BACKGROUND

Q. Please state your name, employer, business address and telephone number.

A. My name is Edit Kranner. I am employed with Consortia Consulting ("Consortia"). My business address is 233 South 13th Street, Suite 1225, Lincoln, Nebraska, 68508.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of the Rural Independent Companies ("RIC").¹ Each of the RIC member companies provides local telephone exchange service, exchange access services and broadband access service in rural areas of Nebraska subject to the jurisdiction of this Commission.

Q. What is your current position?

A. I am a Consultant at Consortia and my specialty is Economics.

Q. What are your duties and responsibilities at Consortia?

¹ Arlington Telephone Company, The Blair Telephone Company, Clarks Telecommunications Co., Consolidated Telco, Inc., Consolidated Telcom, Inc., Consolidated Telephone Company, Curtis Telephone Co., Eastern Nebraska Telephone Company, Great Plains Communications, Inc., Hamilton Telephone Company, Hartington Telecommunications Co., Inc., Hershey Cooperative Telephone Co., K. & M. Telephone Company, Inc., The Nebraska Central Telephone Company, Northeast Nebraska Telephone Company, Rock County Telephone Company and Three River Telco.

A. I am responsible for providing regulatory and economic analysis primarily relating to federal and state universal service and the regulatory support mechanisms associated therewith.

Q. What was your professional experience prior to your current position?

A. I have worked in the telecommunications industry for 10 years at Consortia. Prior to my position with Consortia, I taught courses in Economics at the University of Nebraska-Lincoln as an Adjunct Faculty member. Prior to moving to Nebraska, I was the Director of the Business Information Center of Commerce Lexington in Lexington, KY. Prior to that position, I worked in the energy industry as a Financial Analyst for the merged Kentucky Utilities and Louisville Gas & Electric Companies, which served 1.3 million customers in the states of Kentucky and Virginia. In addition to my full time jobs, I also have taught courses in Economics at the University of Kentucky and the University of Cincinnati.

Q. What is your educational background?

A. I have a Master's degree in Applied Social Research from West Virginia University where I also completed the core course work towards a PhD in Economics. My undergraduate degree is also in Economics from Lvov Institute of Economics and Trade in Lvov, Ukraine.

Q. Have you previously testified before the Nebraska Public Service Commission?

A. No. I have not previously testified before this Commission.

II. PURPOSE AND SUBJECTS OF MY PRE-FILED TESTIMONY

Q. What is the purpose of your testimony?

A. I will provide testimony relating to several of the subjects on which the Commission requested comments in the form of pre-filed testimony. In addition, I will provide testimony relating to studies that I have made relating to (a) historical and projected numbers of voice connections in Nebraska; (b) an analysis of the size of the funding requirement for deployment

of ubiquitous Broadband Internet Access Service (“BIAS”) in Nebraska based upon my use of the State Broadband Cost Model (“SBCM”) constructed by CostQuest Associates, Inc. (“CostQuest”) and licensed to this Commission for use by interested parties in connection with this docket; and (c) an analysis of the number of locations in Nebraska that will not have access to BIAS in the event that the Nebraska Universal Service Fund (“NUSF”) High-Cost Program funding level falls short of the funding requirement produced by the SBCM, net of Federal CAF II Universal Service Fund (“USF”) support designated for carriers operating in Nebraska.

Q. The Commission has proposed a connections-based contribution mechanism rate design that is summarized in Table 2 of its February 22, 2017 Order and Order Seeking Further Comments and Setting Hearing (the “February Order”), more fully explained in Appendix A to the February Order. Please comment as to whether, in your opinion, this proposed rate design meets the consensus goal stated on page 18 of the February Order that the “mechanism adopted by the Commission should be competitively neutral, stable, and easy to administer.”

A. I will focus on the stability element of this consensus goal. From publicly available data sources, principally Federal Communications Commission (“FCC”) Form 477 Reports, I have assembled the historical connection data set forth on pages two through six of Attachment One to my testimony. I would note that with regard to the data set forth in Attachment One, the FCC uses the term “subscription,” however, based upon the explanation in the FCC Form 477 Instructions, that term is equivalent to a “connection” as I understand the definition of “connection” set forth on page 20 of the February Order.

As can be observed from page two of Attachment One, from December 2008 through December 2015 (the latest date for which data from the FCC is available), total voice

connections in Nebraska rose from 2.379 million to 2.631 million. As might be expected based upon the long-standing migration of consumers from wireline to wireless service, wireline business and residential connections declined while wireless connections and Voice over Internet Protocol ("VoIP") business and residential connections increased. This data is set forth on pages three through six of Attachment One. These trends demonstrate that over a nearly seven year period total connections in Nebraska were not only stable, connections actually grew in number.

Q. The information that you have just provided is historical connection data. Have you done any projections as to the likely future stability of connections in Nebraska?

A. Yes and this data is set forth on pages seven through nine of Attachment One.

Q. What methodology have you used to prepare these projections?

A. My projections were prepared using various weighted averages of the current growth trends taking into consideration the business cycle and population growth. For example, for the VoIP business connections I used the average growth rate of the last five six-month-periods. Business VoIP connections experienced faster than usual growth in the last two six-month periods. As we know, the economy grows in cycles. Therefore it was necessary to consider the growth rate over a longer historic period. On the other hand, for residential projections, the weighted average of the last two six-month periods were used where the growth rate for the most current period was weighted at 60% and the growth rate of the previous period carried a 40% weight. In case of the wireless projections, the growth rate for the most current 6 month period where growth was somewhat slower was more heavily weighted knowing that the wireless market is highly saturated and population growth rates have not been keeping up with the growth rates seen in the number of wireless connections.

Q. What conclusions have reached based upon your projections?

A. Based on my analysis, I have concluded that my projections are reasonable and support the proposition that the use of connections by the Commission will establish a stable assessment base for Nebraska Universal Service Fund contribution remittances. As can be observed from these pages, with regard to business voice connections, I project that the number of wireline connections will continue to decline through June 2019, however, the number of VoIP connections will increase to a projected point of equality with wireline business voice connections in early 2019. But importantly, as can be seen from the data at the top of page seven of Attachment One, the total number of business voice connections has remained stable during this time period. Review of the data on page eight of Attachment One similarly shows a continuing decline in residential wireline voice connections together with an increase in residential VoIP voice connections, albeit at a slower growth rate than for business. Total combined residential voice connections are projected to decrease from 363,000 in December 2015 to 306,000 in June 2019. With regard to wireless connections, as shown on page nine of Attachment One, growth is projected to continue with total connections increasing from 1.886 million in December 2015 to 2.053 million in June 2019. Overall, the total number of connections in Nebraska is projected to rise from 2.631 million in December 2015 to 2.814 million in June 2019.

Q. Are you personally familiar with the SBCM and have you studied and performed analyses through use of this Model? If so, please describe your work with the SBCM.

A. Yes, in connection with the performance of my duties at Consortia, I have worked extensively with not only the SBCM, but also the Alternative Connect America Cost Model ("A-CAM") which was also developed by CostQuest and was used by the FCC in connection with its analysis and decisions relating to Federal USF support to be provided to rural rate-of-return

carriers. I have used SBCM to prepare estimates of the cost to build out BIAS-capable facilities to all currently unserved locations in Nebraska as specified in the SBCM. I have also prepared model cost and support estimates for various companies under different scenarios.

Q. Have you prepared a study of the costs that are produced by the SBCM to build out a network to provide BIAS to all parts of Nebraska?

A. Yes, I have performed this study and the results that were produced through the use of the SBCM are set forth on Attachment Two to my testimony.

Q. On pages 22-24 of the February Order the Commission addresses “Sizing of the Fund”. What findings did you make with regard to SBCM-derived funding needed to provide BIAS, and what assumptions did you use to reach these findings?

A. Using SBCM, I calculated that it would cost \$252,449,733 annually above the \$52.50 monthly benchmark to provide BIAS-capable facilities to all locations in Nebraska. This estimate excludes the first \$52.50 of cost per month per connection that the providers are expected to recover through revenues collected from customers. This \$52.50 funding benchmark was established and used by the FCC when determining federal funding to providers. However, the appropriateness of using the \$52.50 funding benchmark in Nebraska has not yet been validated through analysis of Nebraska-specific actual revenue per customer data.

Q. On page 23 of the February Order the Commission asks the question: “What revenue offsets, if any, should be considered to reduce the size of the high-cost mechanism?” Did you include any offsets in your study set forth on Attachment Two? If so, please describe the offsets.

A. I have estimated a total federal high cost support to Nebraska carriers to be \$100,141,579. This includes the FCC’s offer to Price Cap carriers in Nebraska and the total estimated support to

A-CAM electors in the state along with CAF ICC support to model electors as set forth in Attachment Two. After deducting the federal offsets from the total need for funding in Nebraska, I arrived at \$152,308,154 as the remaining need for funding.

Q. Are there additional revenue offsets that the Commission should consider to reduce the size of the high-cost mechanism?

A. As I mentioned earlier, SBCM assumes \$52.50 of monthly revenue per location. This amount is built into the cost estimates of the SBCM as a benchmark above which carriers will need support. For example, if the monthly cost of service is estimated to be \$68.00, the SBCM assumes that \$52.50 of that cost is recovered by revenues from the customer and the remaining \$15.50 is included in the estimates for required support. Of course, if the assumed revenue per location is demonstrated to be more than \$52.50 per month, in the foregoing example, the required support would be reduced (i.e. if the revenue amount increased to \$60.00 per month, the required support would be \$8.00 per month in this example).

Q. From the numbers set forth in your Attachment Two, and as stated on pages 22 and 23 of the February Order, there is a significant gap between Federal USF funding and the costs that the SBCM produces to provide access to BIAS for all Nebraska consumers. Have you undertaken a study to illustrate the impacts of this funding gap on Nebraska consumers?

A. Yes, I have prepared such a study and the results are set forth in Attachment Three to this testimony.

Q. Please describe the information presented in your Attachment Three.

A. I have studied various NUSF budget shortfall scenarios using estimates from SBCM and summarized the results in a table. The table in Attachment Three shows how many customers

would be left without access to BIAS-capable facilities and service if the High Cost Program budget is less than \$152.3 million remaining funding requirement that I previously mentioned and is illustrated in my Attachment Two. The information in Attachment Three is provided in \$5 million shortfall increments. My assumption in preparing this analysis is that the build-out of BIAS-capable facilities would progress from lower cost locations towards the higher cost locations as has historically been the case. For example, based upon the Fixed Broadband Program proposed funding of \$54 million (as shown in Table 4 on page 26 of the February Order) there would be approximately a \$98 million shortfall in funding of the estimated budget need of \$152.3 million (as illustrated in my Attachment Two), and this shortfall would cause approximately 13,000 locations in Nebraska to be left without access to BIAS-capable facilities and service. These 13,000 locations represent the highest cost households or businesses that require build out of BIAS-capable facilities.

Q. Does this conclude your testimony?

A. Yes, it does.

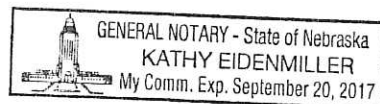
VERIFICATION

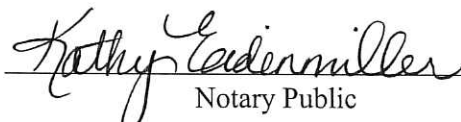
STATE OF NEBRASKA)
) ss.
LANCASTER COUNTY)

Edit Kranner, being first duly sworn on oath, states he has read the foregoing Testimony, is familiar with the contents thereof, and that such contents are true and correct to the best of her information and belief.


Edit Kranner

Subscribed and sworn to before me, a Notary Public in and for such State and County, this 24th day of March, 2017.




Notary Public

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on this 24th day of March, 2017, an electronic copy of the foregoing Pre-Filed Testimony was delivered via electronic mail to:

Nebraska Public Service Commission

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All Other Commenting Parties

Paul M. Schudel (by KE)

Paul M. Schudel

Attachment One

Voice Connections in Nebraska

2008 – 2015
Projections 2016 – 2019

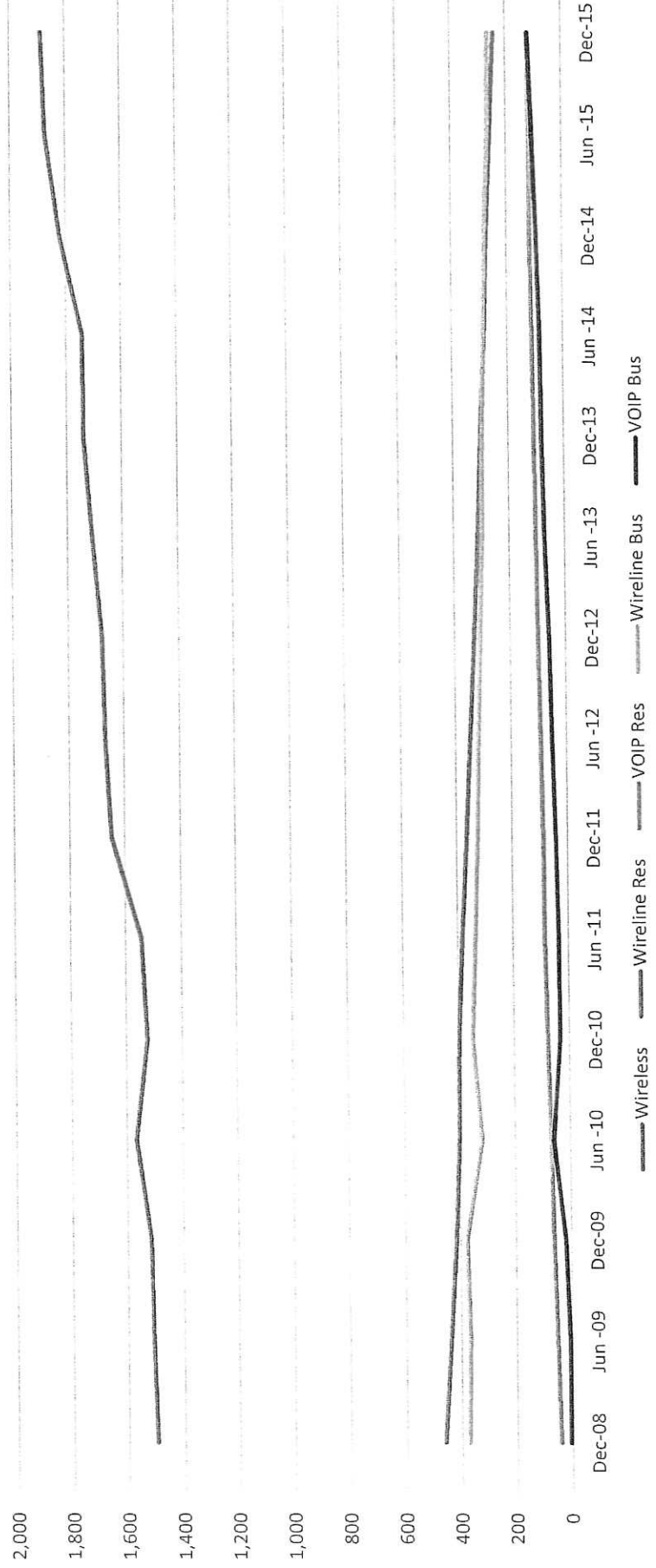
Source of all historic data: FCC Industry Analysis and Technology Division, Wireline Competition Bureau; Voice Telephone Services: Status as of December 31, 2015. State Level Subscriptions, released November 2016
available at: <https://www.fcc.gov/voice-telephone-services-report>

Voice Connections in thousands, Nebraska

	Dec -08	Jun -09	Dec -09	Jun -10	Dec -10	Jun -11	Dec -11	Jun -12	Dec -12	Jun -13	Dec -13	Jun -14	Dec -14	Jun -15	Dec -15
Wireless	1,496	1,508	1,515	1,566	1,523	1,542	1,647	1,668	1,675	1,708	1,738	1,739	1,822	1,873	1,886
Wireline Residential	460	438	415	401	398	382	363	347	329	312	298	282	271	256	242
VOIP - Residential	42	52	63	71	78	85	87	93	99	103	107	111	116	117	121
Wireline - Business	374	368	377	318	349	335	323	317	307	296	293	284	279	266	263
VOIP - Business	7	7	20	60	34	35	43	53	60	73	80	83	92	105	119
Total	2,379	2,373	2,390	2,416	2,382	2,379	2,463	2,478	2,470	2,492	2,516	2,499	2,580	2,617	2,631

Voice Connections - Nebraska

(December 2008 - December 2015 in thousands)

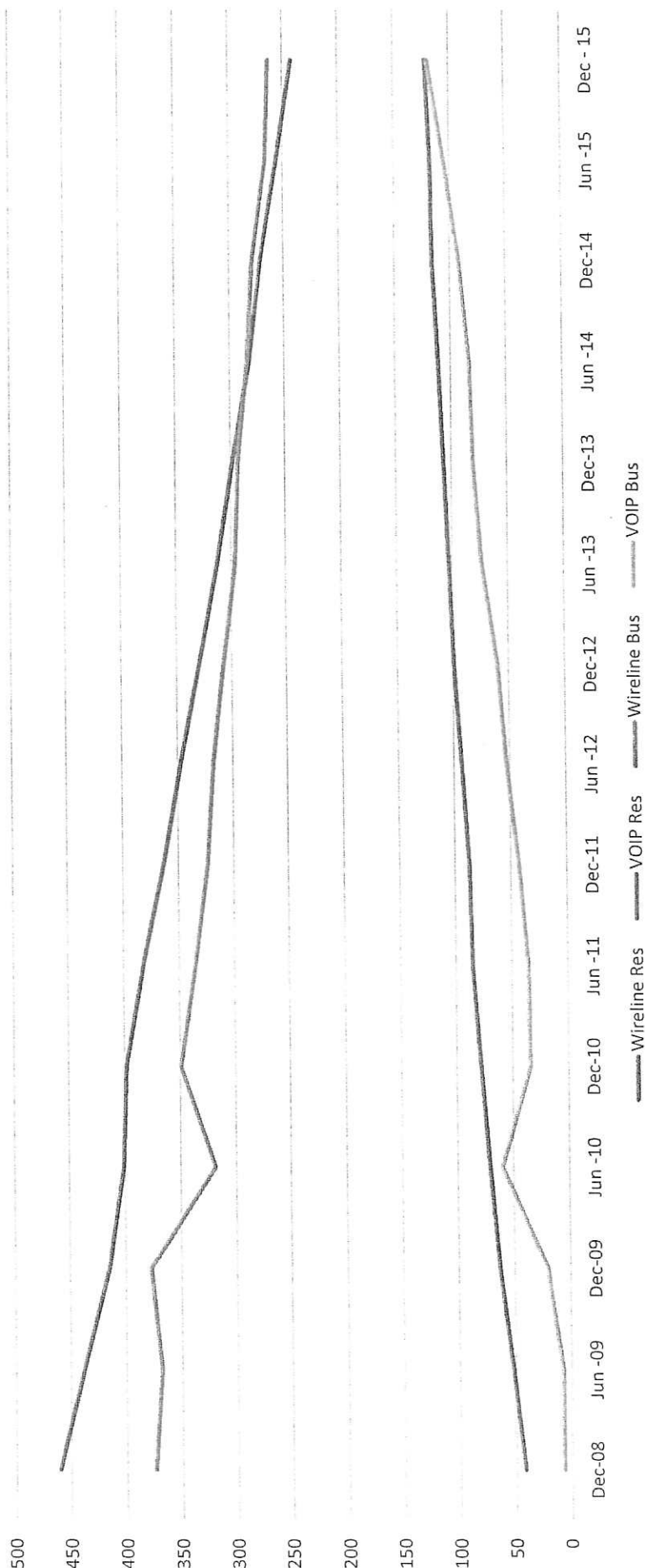


Wireline and VOIP Connections in thousands, Nebraska

	Dec -08	Jun -09	Dec -09	Jun -10	Dec -10	Jun -11	Dec -11	Jun -12	Dec -12	Jun -13	Dec -13	Jun -14	Dec -14	Jun -15	Dec -15
Wireline Residential	460	438	415	401	398	382	363	347	329	312	298	282	271	256	242
VOIP - Residential	42	52	63	71	78	85	87	93	99	103	107	111	116	117	121
Wireline - Business	374	368	377	318	349	335	323	317	307	296	293	284	279	266	263
VOIP - Business	7	7	20	60	34	35	43	53	60	73	80	83	92	105	119
Total	883	865	875	850	859	837	816	810	795	784	778	760	758	744	745

Wireline and VOIP Connections - Nebraska

December 2008 - December 2015, in thousands

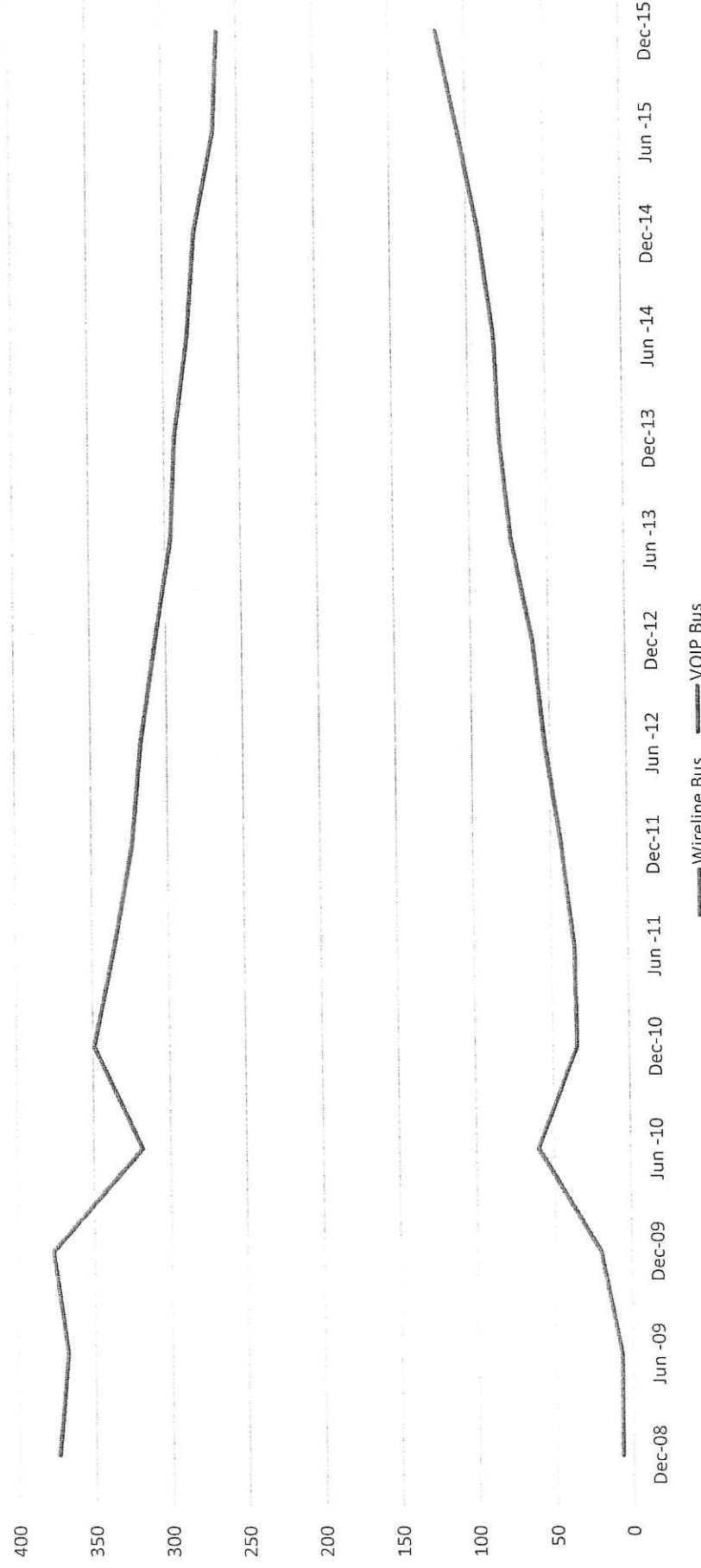


Business Connections in thousands, Nebraska

	Dec -08	Jun -09	Dec -09	Jun -10	Dec -10	Jun -11	Dec -11	Jun -12	Dec -12	Jun -13	Dec -13	Jun -14	Dec -14	Jun -15	Dec -15
Wireline - Business	374	368	377	318	349	335	323	317	307	296	293	284	279	266	263
VOIP - Business	7	7	20	60	34	35	43	53	60	73	80	83	92	105	119
Total	381	375	397	378	383	370	366	370	367	369	373	367	371	371	382

Business Connections - Nebraska

December 2008 - December 2015, in thousands

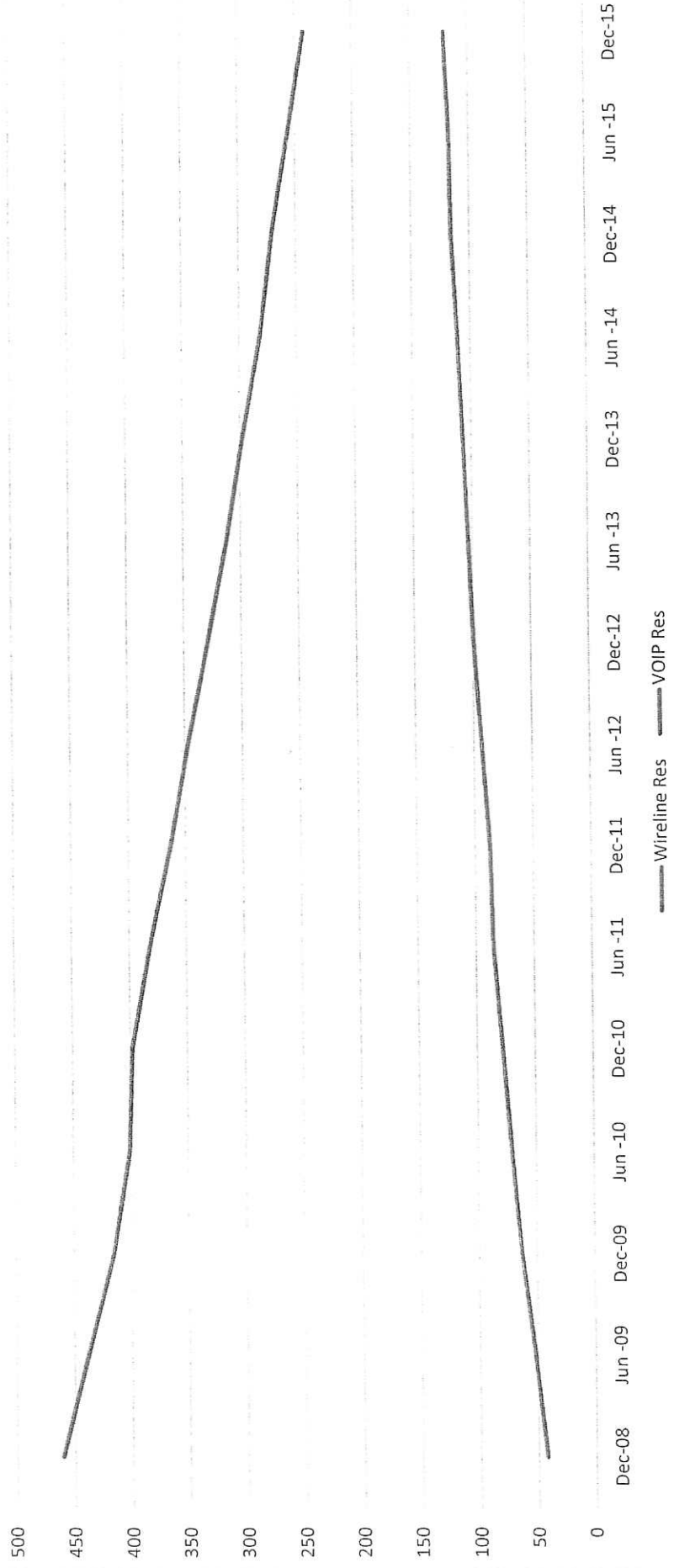


Residential Connections in thousands, Nebraska

	Dec -08	Jun -09	Dec -09	Jun -10	Dec -10	Jun -11	Dec -11	Jun -12	Dec -12	Jun -13	Dec -13	Jun -14	Dec -14	Jun -15	Dec -15
Wireline Residential	460	438	415	401	398	382	363	347	329	312	298	282	271	256	242
VOIP - Residential	42	52	63	71	78	85	87	93	99	103	107	111	116	117	121
Total	502	490	478	472	476	467	450	440	428	415	405	393	387	373	363

Residential Connections - Nebraska

December 2008 - December 2015, in thousands

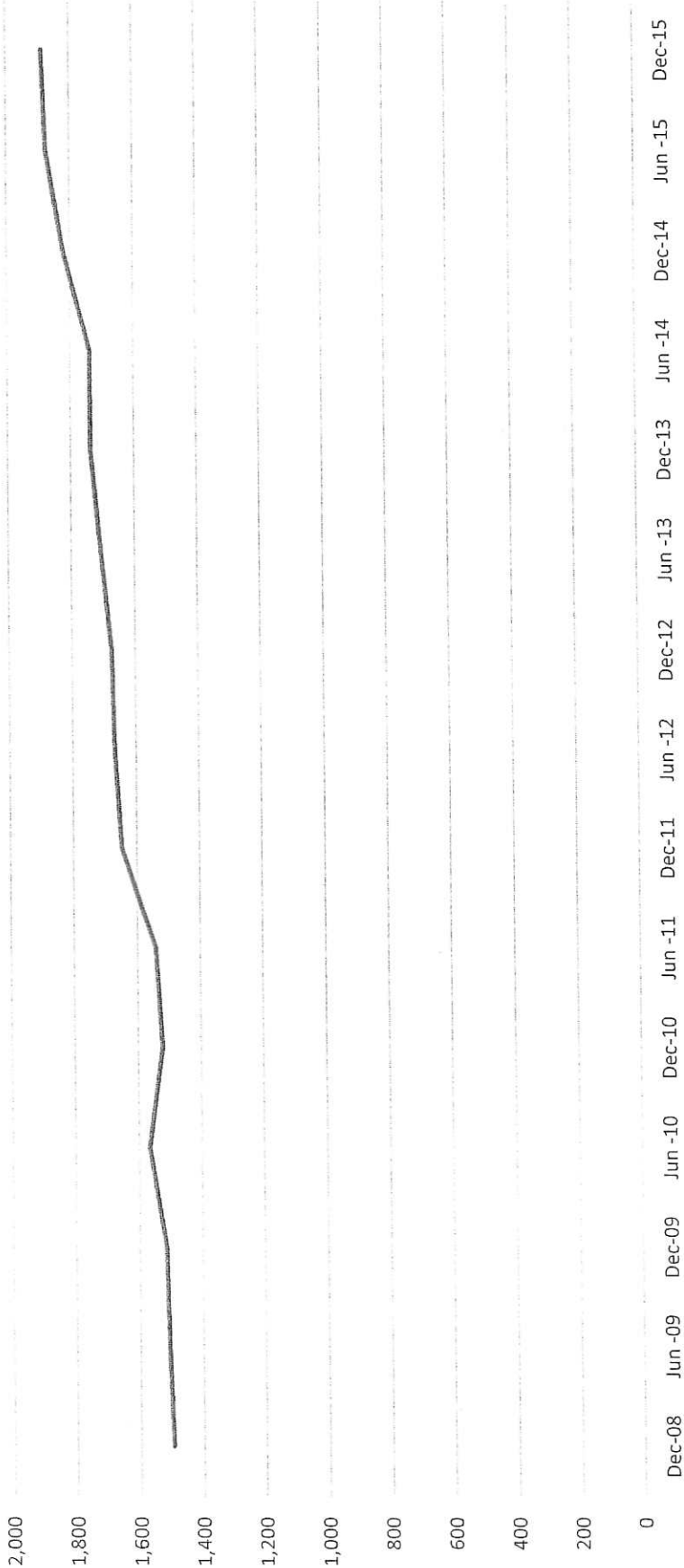


Wireless Connections in thousands, Nebraska

	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec
	-08	-09	-09	-10	-10	-11	-11	-12	-12	-13	-13	-14	-14	-15	-15
Wireless	1,496	1,508	1,515	1,566	1,523	1,542	1,647	1,668	1,675	1,708	1,738	1,739	1,822	1,873	1,886

Wireless Connections - Nebraska

December 2008 - December 2015, in thousands

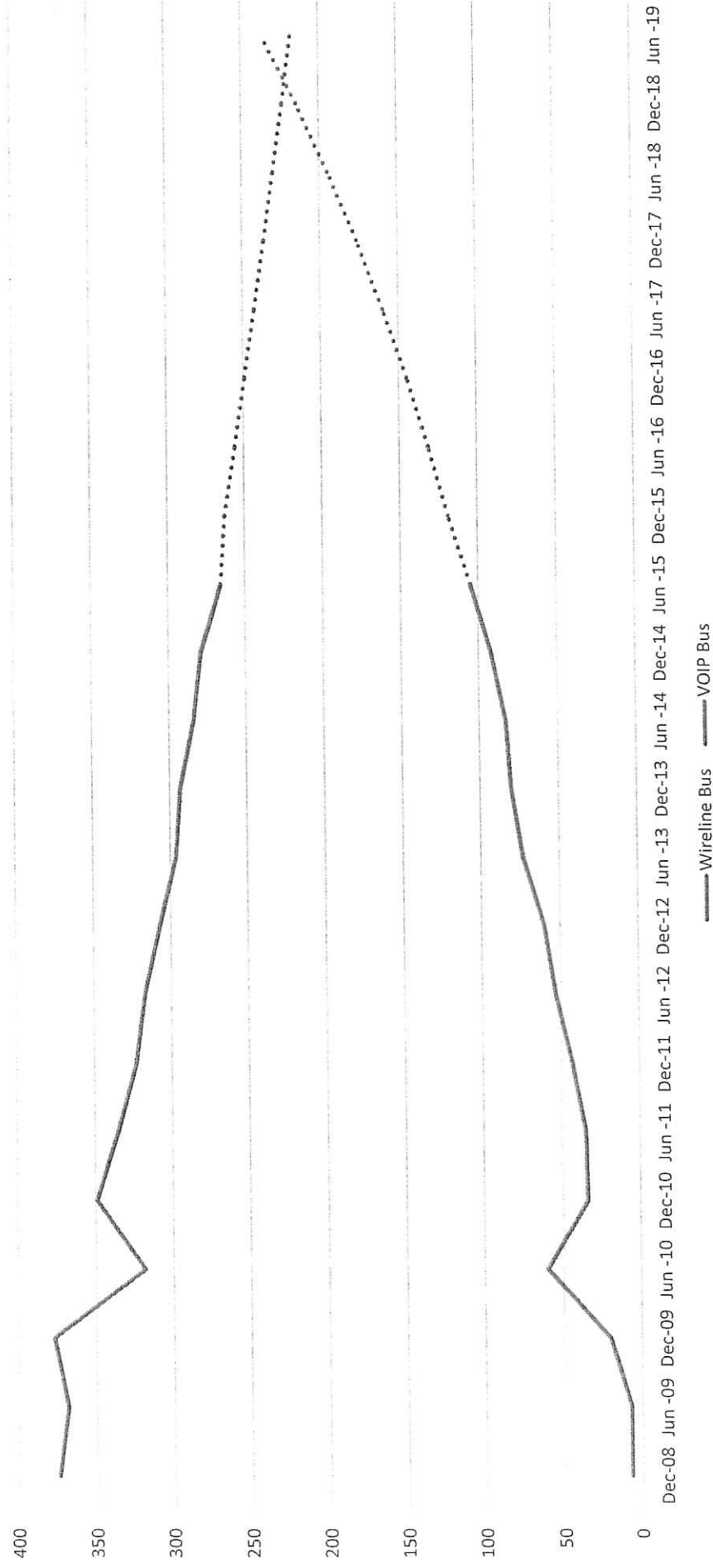


Business Connections in thousands, Nebraska - historic and projections

	Dec -08	Jun -09	Dec -09	Jun -10	Dec -10	Jun -11	Dec -11	Jun -12	Dec -12	Jun -13	Dec -13	Jun -14	Dec -14	Jun -15	Dec -15	Jun -16	Dec -16	Jun -17	Dec -17	Jun -18	Dec -18	Jun -19
Wireline	374	368	377	318	349	335	323	317	307	296	293	284	279	266	263	256	249	243	236	230	224	218
VOIP	7	7	20	60	34	35	43	53	60	73	80	83	92	105	119	131	145	160	176	195	215	237
Total	381	375	397	378	384	370	366	370	367	369	373	367	371	371	382	387	394	402	412	424	438	455

Business Connections - Nebraska

December 2008 - December 2015 Actual, June 2016 - June 2019 Forecasted

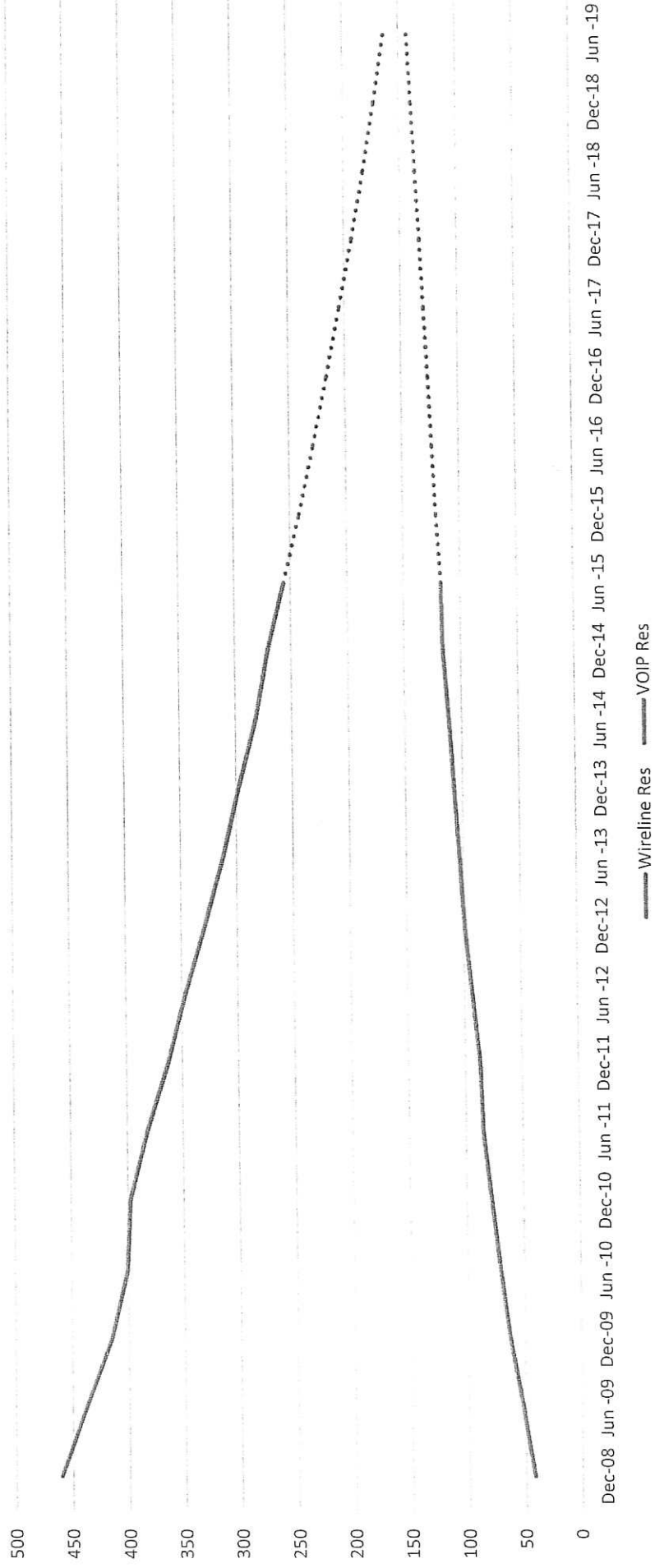


Residential Connections in thousands, Nebraska - historic and projections

	Dec -08	Jun -09	Dec -09	Jun -10	Dec -10	Jun -11	Dec -11	Jun -12	Dec -12	Jun -13	Dec -13	Jun -14	Dec -14	Jun -15	Dec -15	Jun -16	Dec -16	Jun -17	Dec -17	Jun -18	Dec -18	Jun -19
Wireline	460	438	415	401	398	382	363	347	329	312	298	282	271	256	242	229	216	204	193	182	172	163
VOIP	42	52	63	71	78	85	87	93	99	103	107	111	116	117	121	124	127	130	133	136	139	143
Total	502	490	478	472	476	467	450	440	428	415	405	393	387	373	363	353	343	334	326	319	312	306

Residential Connections - Nebraska

December 2008 - December 2015 Actual, June 2016 - June 2019 Forecasted

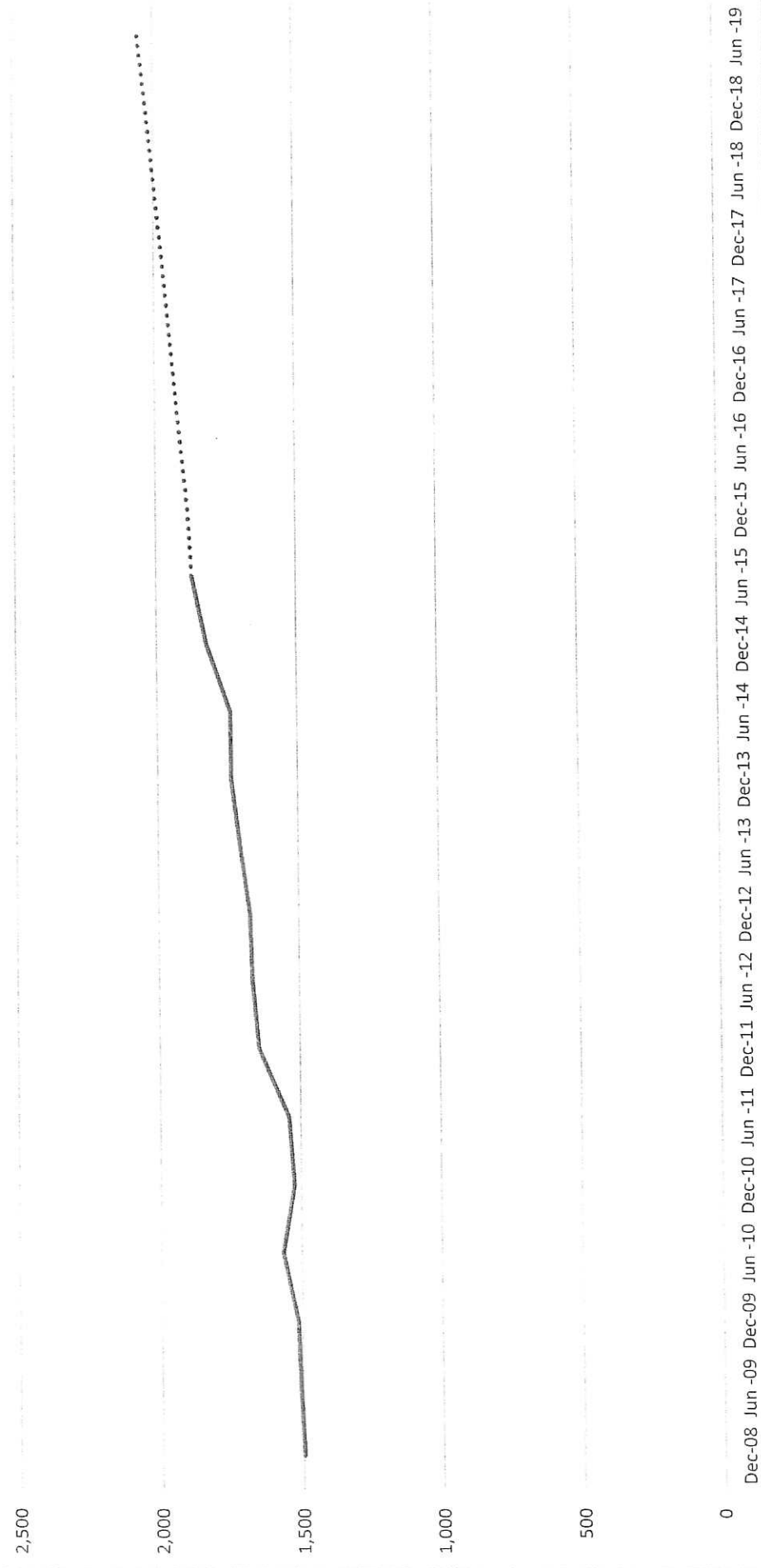


Wireless Connections in thousands, Nebraska - historic and projections

Dec - 08	Jun - 09	Dec - 09	Jun - 10	Dec - 10	Jun - 11	Dec - 11	Jun - 12	Dec - 12	Jun - 13	Dec - 13	Jun - 14	Dec - 14	Jun - 15	Dec - 15	Jun - 16	Dec - 16	Jun - 17	Dec - 17	Jun - 18	Dec - 18	Jun - 19
1,496	1,508	1,515	1,566	1,523	1,542	1,647	1,668	1,675	1,708	1,738	1,739	1,822	1,873	1,886	1,909	1,932	1,956	1,980	2,004	2,028	2,053

Wireless Connections - Nebraska

December 2008 - December 2015 Actual, June 2016 - June 2019 Forecasted, in thousands



Attachment Two

NUSF Sizing Estimate

Description of Data	Dollars/Year
State Model Calculated cost above the 52.50 benchmark	
RoR	130,523,215
PC	121,926,518
Total	252,449,733
FCC offer to PCs in Nebraska	23,215,615
Estimate of RoR A-CAM electors' support in NE	32,067,860
CAF ICC support to model electors	6,645,816
Estimated Federal Legacy Support to NE RoR Companies	38,212,288
Total Estimated Federal Funding	100,141,579
Remaining need for funding NE	152,308,154
Updated 03.20.2017	

Attachment Three

NUSF Budget Shortfall Scenarios

Budget Shortfall Dollars	Additional Locations Left Without Service	Total Locations Left Without Service	Average Monthly Per Loop Cost Range of the Additional Locations
5,000,000	174	174	1,875 - 7,255
10,000,000	262	436	1,475 - 1,870
15,000,000	323	759	1,240 - 1,475
20,000,000	374	1,133	1,095 - 1,240
25,000,000	421	1,554	980 - 1,095
30,000,000	473	2,027	895 - 980
35,000,000	514	2,541	830 - 895
40,000,000	557	3,098	775 - 830
45,000,000	597	3,695	725 - 775
50,000,000	636	4,331	690 - 725
55,000,000	680	5,011	645 - 690
60,000,000	725	5,736	610 - 645
65,000,000	770	6,506	575 - 610
70,000,000	817	7,323	550 - 575
75,000,000	862	8,185	525 - 550
80,000,000	911	9,096	500 - 525
85,000,000	960	10,056	475 - 500
90,000,000	1,005	11,061	455 - 475
95,000,000	1,058	12,119	435 - 455
100,000,000	1,110	13,229	420 - 435
105,000,000	1,165	14,394	405 - 420
110,000,000	1,219	15,613	385 - 405
115,000,000	1,279	16,892	370 - 385
120,000,000	1,338	18,230	355 - 370
125,000,000	1,402	19,632	340 - 355
130,000,000	1,475	21,107	330 - 340
135,000,000	1,542	22,649	315 - 330
140,000,000	1,616	24,265	305 - 315

Notes: - Numbers are based on the Nebraska State Model

- Calculations of budget shortfall reflect the cost above \$52.50
- The last column (average cost range) includes all cost, not just the cost above \$52.50
- NE Model published cost data is rounded to the nearest 5\$ by CostQuest. The model, however uses the exact cost when calculating support amounts.
- It was assumed that the locations with the highest costs will be served last