

W. Frank Barton School of Business

Center for Economic Development and Business Research



Kansas Rural Local Exchange Carriers

Assessing the Impact of the National Broadband Plan



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Contents

Summary 2

Introduction 4

Background 4

 Service Area 4

 Low Cost Services..... 7

Methodology..... 8

 Fiscal Benefit Cost Model..... 8

 Substitution Effect 8

 RIMS II Multipliers..... 8

 Employee Residence 9

 Limitations..... 9

 Data Estimates 9

Projected Revenues and Expenditures 10

Wages and Employment 10

Economic Impact..... 11

Appendix A 14

Summary

The Center for Economic Development and Business Research, W. Frank Barton School of Business, Wichita State University (CEDBR) conducted this study to evaluate the economic impact of proposed changes in funding of Kansas Rural Local Exchange Carriers (RLECs). The Notice of Proposed Rulemaking (NPRM), to implement the National Broadband Plan (NBP), released by the Federal Communications Commission (FCC) in March 2010, proposes to reallocate Federal Universal Service Funds (USF) currently distributed to RLECs. This study estimates the economic and fiscal impact of the Kansas RLECs currently and with the redistribution of the USF funds on the regional and state economy.

With the exception of Wyandotte County, a Kansas RLEC provides services in 104 of the 105 Kansas counties. In general, the areas served by the 37 Kansas RLECs have lower average annual incomes, a declining population base and the lowest population densities of the state. Collectively, Kansas RLECs serve more than 50% of the geographic area and less than 10% of the telephone customers in Kansas.

The direct jobs and the service that the Kansas RLECs provide have a significant impact on the communities and local governments. In 2010, Kansas RLECs directly employed 1,005 people and created a total of \$53,724,040 of wages in rural Kansas. Those same 1,005 jobs create and support an additional 1,627 jobs within the economies they serve. The total employment impact of Kansas RLECs is 2,632 jobs, which supports \$92,700,831 of total wages in 2010.

It should be noted that this study, when looking at the impact of the NPRM, takes a limited-direct approach to evaluating the impact. The authors of this study recognize that this does not completely estimate the full impact this regulatory action will have on the local economies served by the Kansas RLECs. Other potential impacts that should be noted, but were beyond the scope of this study, include the following:

- Intercarrier Compensation Reform
- Community Donations
- Volunteer Time
- Community Leadership
- Economic Development Leadership
- Disruption of telecommunication/broadband services provided to anchor institutions (e.g. schools, libraries, hospitals, and health clinics)

As a basis for this analysis, CEDBR used survey data from 35 of the 37 RLECs located in Kansas. This data was provided by each Kansas RLEC and included information about its business, employees, payroll and taxes paid, as a basis for the analysis. The results were calculated using the Fiscal Benefit Cost Model. The model takes into account industry substitution and multipliers. In addition, it looks at the flow of money from a company or entity to taxing districts and the flow from the taxing district to the company. CEDBR looks at income streams

from sales and purchases of the entity under review, employees and the payrolls associated with employees.

The reduction in funding to Kansas RLECs from the NPRM is estimated to average \$28,715,201 a year between 2012 and 2016, for a projected loss of funding during the five years totaling \$143,576,054.

As a result of the loss of funding, the Kansas RLECs will in turn reduce services and associated staff. The estimated total direct jobs lost between 2012 and 2016 are 140. This will result in a loss of \$29,615,044 in wages during the same time period.

The direct job losses are amplified in the economy due to indirect and induced effects, more commonly referred to as an employment multiplier. The employment multiplier is 2.6, which means for every one job lost, there are an additional 1.6 jobs also removed from the economy. Therefore, the total employment impact in rural Kansas is 367 jobs by 2016, with a total wage impact of \$51,100,757 over the five-year period.

As a result of these job losses, the State of Kansas is estimated to lose personal income taxes in the total amount of \$1,434,472 during the five years covered by the projections.

The reduction in funding to Kansas RLECs from the NPRM will also have an effect on the local governments and the state in the form of sales and property taxes. Over the five-year period, the local governments and the state will lose \$1,109,201 in property tax and \$1,577,737 in retail sales tax collections.

The proposed loss of over \$143 million of USF will require Kansas RLECs to dramatically change their operations and likely cause defaults on loan obligations owed to the federal government and other lending institutions. It is expected that Kansas RLECS will, at minimum, cease operations in numerous highly rural communities across the state. The total employment impact will be a loss of 367 jobs by 2016 and a total wage impact of \$51,100,757 over a five-year period. Consequently, this will have a significant negative economic impact on rural Kansas.

Introduction

The Center for Economic Development and Business Research, W. Frank Barton School of Business, Wichita State University (CEDBR), was given the task of analyzing the economic impact of the Federal Communications Commission (FCC) Notice of Proposed Rulemaking (NPRM) to implement the National Broadband Plan (NBP) as it relates to the proposed reduction of Federal Universal Service Funds (USF) distributed to the Kansas Rural Local Exchange Carriers (RLECs). In doing so, CEDBR was able to model the flow of money from businesses to individuals, companies and taxing entities in the state.

Each Kansas RLEC provided CEDBR with survey data about its business, employees, payroll and taxes paid, as a basis for analysis. Survey data for 35 out of 37 of the Kansas RLEC businesses are included in this report.¹

Background

In March 2010, the FCC released the NPRM, which proposes to change the current federal mechanisms that support deployment of voice and broadband services in high-cost areas. This could shift up to \$15.5 billion nationally during the next decade from the existing USF funded programs to support broadband deployment in underserved areas.² The plan would expect to be completed in three stages: phase one, 2010-2011, would focus on rulemakings to set the framework; phase two, 2012-2016, would focus on major initial implementation; and phase three, 2017-2020, would complete the transition.³

According to an article from Washington Telecom, Media & Tech Insider, to shift the money to broadband, without raising overall costs, the NPRM proposes two changes in the funding for RLECs. Price-capped RLECs would have \$457 million in annual USF interstate access support (for past access charge cuts) shifted over from voice to broadband. The Rate of Return RLECs would be shifted to incentive regulation (presumably price caps), with per-line access replacement frozen.⁴

Service Area

All telephone exchange service areas are considered rural for state purposes in Kansas, except those served by AT&T or CenturyLink. For federal purposes, in Kansas, all exchanges except those served by AT&T are considered rural.⁵ The geographic boundaries of these service areas do not coincide with county or city boundaries. For the purpose of this study, CEDBR looked at population and wage information at the county level.

¹ Appendix A has a full list of the Kansas RLECs participating in the study

² Federal Communications Commission – National Broadband Plan, Executive Summary, Pg. XIII

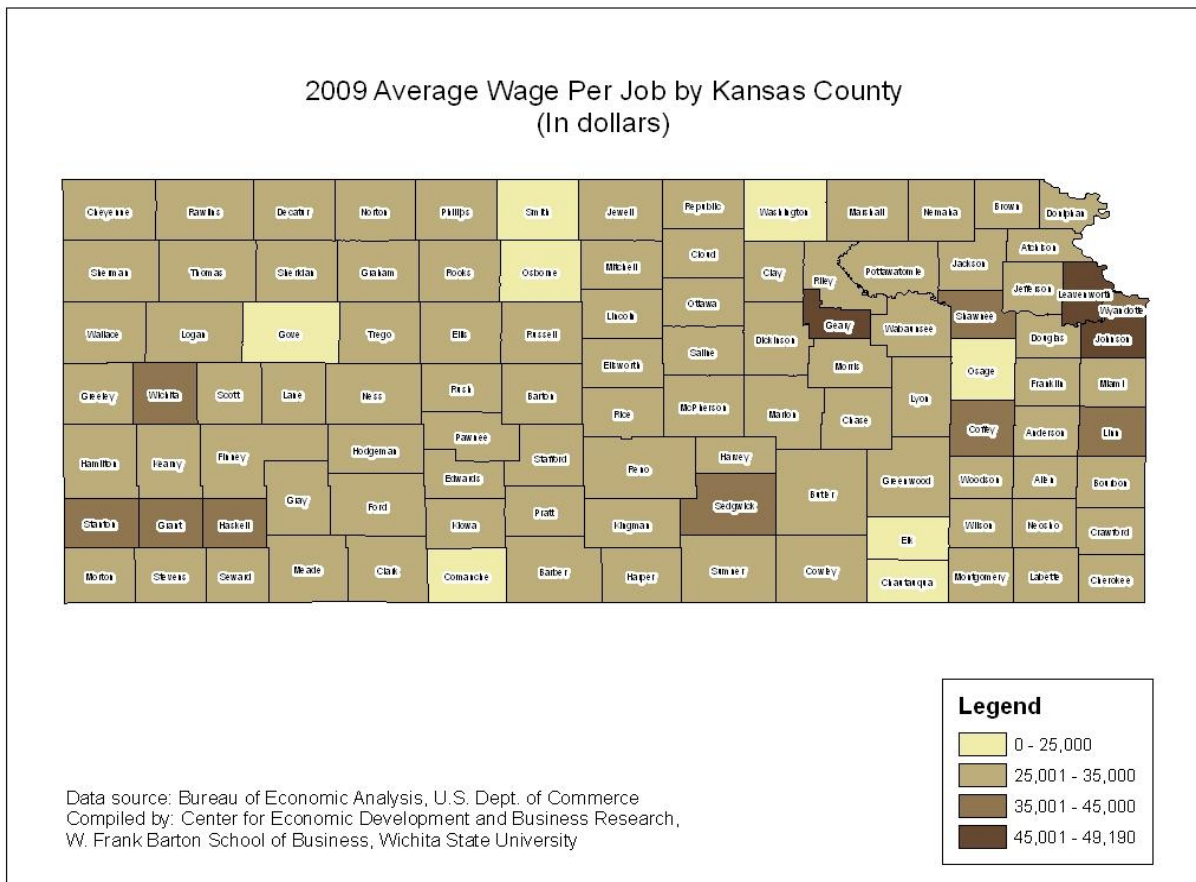
³ Washington Telecom, Media & Tech Insider, FCC National Broadband Plan – First Look, March 16, 2010

⁴ Washington Telecom, Media & Tech Insider, FCC National Broadband Plan – First Look, March 16, 2010

⁵ [Kansas Corporation Commission](#)

Kansas is one of the most rural states in the nation, ranking 42nd highest in population density based on 2010 census data.⁶ Its counties range in density from Johnson County with a density of 1,133 persons per square mile to Greeley County, with an estimated 1.6 persons per square mile.⁷ With the exception of Wyandotte County, a Kansas RLEC provides services in at least some portion of each county.

The customers of Kansas RLECs live in and around rural communities. The average wage per job is lower in counties that are predominately rural than in more urban counties. The average wage per job in metropolitan areas in Kansas is \$42,373, while in rural areas the average falls to \$31,155.⁸



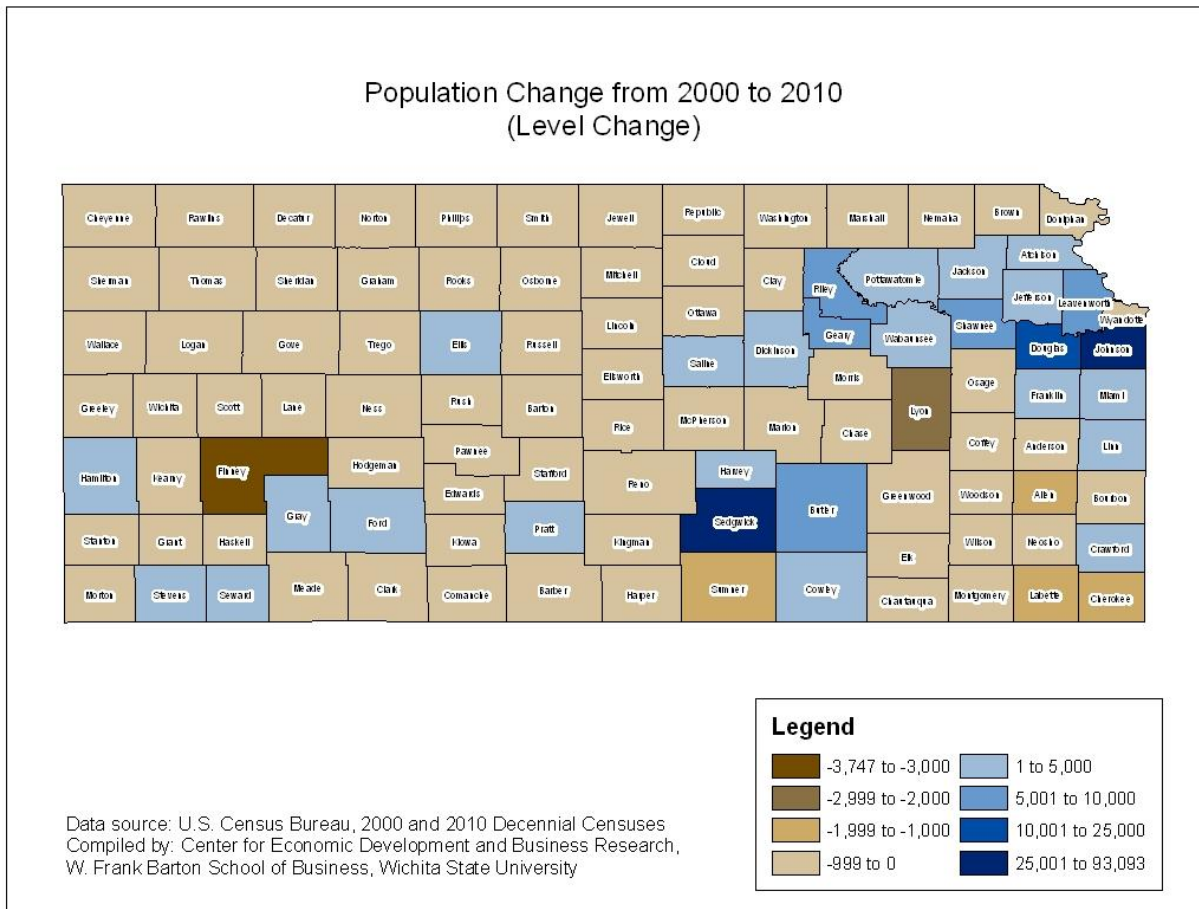
⁶ [U.S. Census Bureau](http://www.census.gov)

⁷ [U.S. Census Bureau](http://www.census.gov), 2010 Population counts, 2000 Area in square miles

⁸ Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce <http://www.bea.gov/regional/docs/footnotes.cfm?tablename=CA34>, 'December 2010.'

In general, the communities served by the Kansas RLECs have seen population declines in the last ten years. The Kansas City and Wichita Metropolitan areas have seen the majority of the population growth in Kansas.

Kansas RLECs provide low cost services in areas where telephone rates would be higher due to the regions being sparsely populated. This lower cost service is attributable, in part, to USF support.



In Kansas, each RLEC receiving USF is designated by the FCC as a Carrier of Last Resort (COLR). COLRs are required by law to provide service to any customer in a service area that requests it, even if serving that customer would not be economically viable at prevailing rates. As stated in a study by The National Research and Regulatory Institute, these policies were established to provide service to low income, low population areas because competition by itself cannot ensure broad-based access to telephone service. Competitors may avoid serving areas that are

high cost, sparsely populated or filled with subscribers of limited means, while incumbent providers may seek to discontinue service in those same areas.⁹

Low Cost Services

The services or functionalities that are currently supported by USF are: voice-grade access to the public switched telephone network; local usage; dual tone multi-frequency signaling or its functional equivalent; single-party service or its functional equivalent; access to emergency services; access to operator services; access to long distance services; access to directory assistance; and toll limitation for qualifying low-income consumers.¹⁰ The FCC is attempting to modify this focus to include broadband deployment. The reduction of USF distributed to Kansas RLECs proposed in the NPRM could create the need to increase fees for existing services.

An increase in fees may impact consumers in rural areas differently depending on carrier options in their area. Across the state, there are a variety of markets served by Kansas RLECs. They are sometimes, but not always, the only provider of telephone service. Depending on the availability of alternative service providers, consumers will react differently to a potential increase in the cost of phone service. Telephone calls are highly elastic between service options.¹¹ This means that as the price of service increases, consumers will easily move between available service providers to find a lower price. However, access to telephone service is inelastic.¹² In areas where there is only one provider, consumers are not sensitive to price. As the price of the service increases, they will pay the higher price to keep the service and reduce their spending in other areas. The impact of the reduced spending in other areas is beyond the scope of this report.

Access to the Internet supported by USF can be important to the development of rural communities. From the National Telecommunications and Information Administration, Research Preview, February 2011, in a survey of 54,000 households and 129,000 people, more than 68 percent of U.S. households currently use high-speed broadband access. However, rural America lags behind urban areas by ten percentage points (60% versus 70%) in the adoption of broadband. From this same survey, the number one reason (38.7%) households do not have an Internet connection at home is cost.¹³

⁹ Bluhm, Peter, Phyllis Bernt, *Carriers of Last Resort: Updating a Traditional Doctrine*, National Regulatory Research Institute, 09-10 July 2009, http://www.nrri.org/pubs/telecommunications/COLR_july09-10.pdf.

¹⁰ [Kansas Corporation Commission](#)

¹¹ Train, Kenneth E., Daniel L. McFadden and Moshe Ben-Akiva, The demand for local telephone service: A fully discrete model of residential calling patterns and service choices, *The Rand Journal of Economics*, Spring 1987, Vol.18 NO. 1, ABI/INFORM Global, pg. 109

¹² Ellig, Jerry, *Costs and Consequences of Federal Telecommunications and Broadband Regulations*, Washington: Fall 2005, Vol. 28, No.3, pg. 40-44.

¹³ Digital Nation – Expanding Internet Usage, NTIA Research Preview, February 2011, U.S. Department of Commerce, National Telecommunications and Information Administration.

Methodology

Fiscal Benefit Cost Model

CEDBR calculates benefits and costs using the Fiscal Benefit Cost Model. The model takes into account industry substitution and multipliers. In addition, it looks at the flow of money from a company or entity to taxing districts and the flow from the taxing district to the company. CEDBR looks at income streams from sales and purchases of the entity under review, employees and the payrolls associated with employees.

For the purpose of this project, average regional tax rates were used when calculating impacts to the region. The actual impact could vary based on the specific location of the Kansas RLEC.

The model takes each benefit and applies the appropriate tax scenario. As an example, an employee is paid a wage on which income taxes are paid. The employee spends their income on housing, which is assessed a property tax, and on retail trade, which is assessed a retail sales tax. It is assumed that 50 percent of all wages are subject to retail sales tax. It is further assumed that 100 percent of wages are subject to federal income tax, as well as state income tax.

In the Fiscal Benefit Cost Model, all data used in the model are subject to a substitution and a multiplier effect.

Substitution Effect

Substitution occurs when new investment displaces current resources and jobs from one entity to another. This study includes this effect, except for USF, an inflow of federal funds within the state and region. All USF are new to the area and would not currently exist within Kansas without the Kansas RLECs.

RIMS II Multipliers

RIMS II multipliers from the Bureau of Economic Analysis, aggregated for the State of Kansas, were used to calculate total economic impacts from industry expansion, net of substitution. The notion of a multiplier effect arises due to the interrelatedness of local industries. For example, if the demand for aviation products increases, this will lead to an increase in demand from industry suppliers. Therefore, payroll increases as a direct result of the expanding firm's operations and indirectly as a result of the expanding firm's increase in demand for locally supplied inputs. The multiplier also addresses the relationship between wages and employee demands on supporting industries, such as retail trade. There is a need for additional employees, who earn wages, as sales in retail trade industries increase. This induced effect measures the impact of expenditures of direct and indirect employees to retail and other industries. The total effect of expansion is the sum of these direct, indirect and induced effects.

RIMS II multipliers are available for final demand output, earnings and employment and were used to assess the economic impact of the 35 Kansas RLECs in this study. Final demand multipliers are used to assess the effect a change in output in one industry has on other

industries within an economic region. Direct effect employment multipliers can range in value from 1.2 for child day care services to 5.6 for petroleum refineries.

Direct effect multipliers are reported for both employment and earnings impacts and were used in determining the direct effect of employment and wages. Direct effect multipliers calculate the change in total employment based on a change in a specific industry's employment.

For the purpose of this report, the North American Industry Classification System (NAICS) code for telecommunication carriers was used.

Employee Residence

The methodology used assumes that 100 percent of the Kansas RLECs employees live within the Kansas RLEC's region. Furthermore, it was assumed that, if the Kansas RLECs did not exist, half of the employees living in the region would have to leave. In other words, 50 percent of Kansas RLEC employees live in the region due to the location of their employer. In addition, 70 percent of individuals are assumed to own a home.

Limitations

It should be noted that this study, when looking at the impact of the NPRM, takes a limited-direct approach to evaluating the impact. The authors of this study recognize that this does not completely estimate the full impact this regulatory action will have on the local economies served by the Kansas RLECs. Other potential impacts that should be noted, but were beyond the scope of this study include the following:

- Intercarrier Compensation Reform
- Community Donations
- Volunteer Time
- Community Leadership
- Economic Development Leadership
- Disruption of telecommunication/broadband services provided to anchor institutions (e.g. schools, libraries, hospitals, and health clinics)

If USF were not used to provide Kansas RLEC support, it would be available for alternative use. Estimating the potential economic impact of alternative uses of these opportunity costs was beyond the scope of this analysis.

Data Estimates

The initial phase of the project required CEDBR to define the time period under analysis. The time period was defined by the availability of comparable data; the analysis uses data from 2010 and projected data for 2012 through 2016. Data was held constant between 2010 and 2011. This analysis focuses on the economic impact of a decline in business activity within Kansas.

In order to calculate the fiscal and economic impact of business activity to Kansas, the following data was used:

- Gross Revenue
- Expenditures
- Employment
- Annual Payroll
- Customer Counts

Projected Revenues and Expenditures

Actual revenue, USF funding and expenditure data were provided for 2010. Revenue and USF funding estimates for years 2012 through 2016 were provided. CEDBR assumed that non-USF revenues would remain constant through the analysis period. Pre-NBP revenues were calculated by adding non-USF revenues to estimated USF revenues during the analysis period. Post-NBP revenues were calculated in the same manner, only using NBP adjusted USF data.

Expenses were provided for 2010. In 2010, expenditures were approximately 83 percent of revenues. CEDBR forecasted both pre-NBP and post-NBP expenditures by taking revenues for the given time period times the 83 percent. That being said, it is likely, given current capital expenditures, total expenses will grow to a greater percentage of revenues than in 2010. It should be noted that using 83 percent is a conservative estimate.

The estimated percent change from the proposed NBP is calculated by year.¹⁴ In other words, the proposed change in USF will decrease total revenues by 13.6 percent in 2016.

	Estimated Revenue				Estimated Expenses	
	Pre-NBP	Post-NBP	\$ Change	% Change	Pre-NBP	Post-NBP
2010	\$261,108,847				\$216,088,081	
2012	\$268,580,172	\$251,354,697	-\$17,225,475	-6.4%	\$222,271,189	\$208,015,756
2013	\$274,945,460	\$250,065,792	-\$24,879,668	-9.0%	\$227,538,965	\$206,949,086
2014	\$276,701,743	\$244,235,411	-\$32,466,332	-11.7%	\$228,992,427	\$202,123,987
2015	\$273,782,538	\$241,185,299	-\$32,597,239	-11.9%	\$226,576,556	\$199,599,780
2016	\$267,112,440	\$230,705,149	-\$36,407,291	-13.6%	\$221,056,526	\$190,926,633
Total	\$1,361,122,352	\$1,217,546,348	-\$143,576,004	-10.5%	\$1,126,435,663	\$1,007,615,242

Wages and Employment

Wages and full-time equivalent employment data were provided for 2010. Employment data was estimated based on revenue per employee. In 2010, revenue per employee was approximately \$259,900, indicating that to hire an additional employee revenues would need to increase by \$259,900. On the other side, each time revenue declines by \$259,900, a

¹⁴ Estimated percentage change from NBP was calculated by the percentage change from Pre-NBP revenue to the Post-NBP revenue.

company would need to reduce employment by one employee. Using this assumption, CEDBR estimated employment in 2012 through 2016 prior and post NBP proposed funding changes.

Total wages paid were based on the average annual wage of Kansas RLEC employees and total employment. In 2010, the average annual wage of a Kansas RLEC employee was approximately \$53,457. The national annual earnings for wired telecommunication carriers in 2010 were \$61,113, according to the Current Employment Statistics from the Bureau of Labor Statistics.

	Wages		Employment	
	Pre - NBP	Post - NBP	Pre - NBP	Post - NBP
2010	\$53,724,040		1,005	
2012	\$55,242,045	\$51,699,079	1,033	967
2013	\$56,551,269	\$51,433,975	1,058	962
2014	\$56,912,504	\$50,234,772	1,065	940
2015	\$56,312,077	\$49,607,419	1,053	928
2016	\$54,940,160	\$47,451,844	1,028	888
Sums may not add to totals due to rounding.				

Economic Impact

The reduction in funding to Kansas RLECs from the NPRM is estimated to total \$143,576,054 between 2012 and 2016. The total impact of this loss of USF to the Kansas RLECs in the local economy combines direct loss of jobs at the Kansas RLECs with the indirect and induced effects. The indirect and induced effects are due to: industry substitution; multipliers; the flow of money from the Kansas RLECs to taxing districts; the flow from the taxing district to the Kansas RLECs; income streams from sales and purchases of the Kansas RLECs; employees; and the payrolls associated with employees.

The direct loss of employment as a result of the loss of funding is estimated to be 67 jobs in 2012, with lost wages estimated to be \$3,581,603. Job losses are estimated to increase each year. In 2013, there is projected to be 96 jobs lost, with lost wages estimated to be \$5,131,849. In 2014, projected losses are 125 jobs with lost wages estimated to be \$6,682,095. In 2015, projected losses are 126 jobs with lost wages estimated to be \$6,735,551. In 2016, projected losses are 140 jobs with lost wages estimated to be \$7,483,946. The total estimated direct loss of jobs between 2012 and 2016 is 140 jobs. This will result in a direct loss of approximately \$29,615,043 in wages during the same time period.

The direct job losses are amplified in the economy as a result of the indirect and induced effects, more commonly referred to as an employment multiplier. The employment multiplier is 2.6, which means for every one job lost, there are an additional 1.6 jobs also removed from the economy. The total loss of employment including these effects is estimated to be: 175 jobs and \$6,180,055 in wages in 2012; 251 jobs and \$8,855,005 in wages in 2013; 327 jobs and \$11,529,954 in wages in 2014; 330 jobs and \$11,622,194 in wages in 2015; 367 jobs and

\$12,913,549 in wages in 2016. As a result of these job losses, the State of Kansas is estimated to lose personal income taxes in the total amount of \$1,434,472 during the five years covered by the projections.

Based on the assumption that the job losses will reduce property tax collections, CEDBR estimated the total loss of property taxes at the regional level to be \$931,775 and \$177,426 at the state level between 2012 and 2016, with the majority of losses occurring in the later years.

The loss of wages in the economy will also reduce retail sales tax collections by an estimated amount of \$223,567 at the regional level and \$1,354,170 at the state level in the years covered by the projection.

Economic Impact of Total Employment - Pre - NBP									
	Direct Employment	Total Employment	Direct Wages	Total Wages	Property Tax Collections		Retail Sales Tax		KS Personal Income Tax
					Region	State	Region	State	
2010	1,005	2,632	\$53,724,040	\$92,700,831	\$630,171	\$321,864	\$405,566	\$2,456,572	\$2,602,245
2011	1,005	2,632	\$53,724,040	\$92,700,831	\$1,260,343	\$321,864	\$405,566	\$2,456,572	\$2,602,245
2012	1,034	2,708	\$55,274,286	\$95,375,780	\$1,908,698	\$331,152	\$417,269	\$2,527,458	\$2,677,335
2013	1,058	2,771	\$56,557,248	\$97,589,531	\$2,572,102	\$338,838	\$426,954	\$2,586,123	\$2,739,478
2014	1,065	2,790	\$56,931,445	\$98,235,209	\$3,239,895	\$341,080	\$429,779	\$2,603,233	\$2,757,603
2015	1,054	2,761	\$56,343,421	\$97,220,573	\$3,900,792	\$337,557	\$425,340	\$2,576,345	\$2,729,121
2016	1,028	2,693	\$54,953,545	\$94,822,342	\$4,545,385	\$329,231	\$414,848	\$2,512,792	\$2,661,799

Economic Impact of Total Employment - Post - NBP									
	Direct Employment	Total Employment	Direct Wages	Total Wages	Property Tax Collections		Retail Sales Tax		KS Personal Income Tax
					Region	State	Region	State	
2010	1,005	2,632	\$53,724,040	\$92,700,831	\$630,171	\$321,864	\$405,566	\$2,456,572	\$2,602,245
2011	1,005	2,632	\$53,724,040	\$92,700,831	\$1,260,343	\$321,864	\$405,566	\$2,456,572	\$2,602,245
2012	967	2,533	\$51,692,683	\$89,195,725	\$1,866,686	\$309,694	\$390,231	\$2,363,687	\$2,503,852
2013	962	2,520	\$51,425,399	\$88,734,527	\$2,469,895	\$308,093	\$388,214	\$2,351,465	\$2,490,906
2014	940	2,462	\$50,249,351	\$86,705,255	\$3,059,309	\$301,047	\$379,335	\$2,297,689	\$2,433,941
2015	928	2,431	\$49,607,870	\$85,598,379	\$3,641,199	\$297,204	\$374,493	\$2,268,357	\$2,402,869
2016	888	2,326	\$47,469,599	\$81,908,794	\$4,198,007	\$284,394	\$358,351	\$2,170,583	\$2,299,297

Difference between Pre and Post NBP									
	Direct Employment	Total Employment	Direct Wages	Total Wages	Property Tax Collections		Retail Sales Tax		KS Personal Income Tax
					Region	State	Region	State	
2010	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2011	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2012	-67	-175	-\$3,581,603	-\$6,180,055	-\$42,011	-\$21,458	-\$27,038	-\$163,771	-\$173,483
2013	-96	-251	-\$5,131,849	-\$8,855,005	-\$102,207	-\$30,745	-\$38,741	-\$234,658	-\$248,573
2014	-125	-327	-\$6,682,095	-\$11,529,954	-\$180,586	-\$40,033	-\$50,444	-\$305,544	-\$323,662
2015	-126	-330	-\$6,735,551	-\$11,622,194	-\$259,593	-\$40,353	-\$50,847	-\$307,988	-\$326,252
2016	-140	-367	-\$7,483,946	-\$12,913,549	-\$347,378	-\$44,837	-\$56,497	-\$342,209	-\$362,502

Appendix A

Kansas Rural Local Exchange Carriers Participating in the Study

Blue Valley Tele-Communications, Inc., Home, KS 66438

Columbus Telephone Co., Inc., Columbus, KS 66725

Craw-Kan Telephone Cooperative, Inc., Girard, KS 66743

Cunningham Telephone Co., Inc., Glen Elder, KS 67446

Elkhart Telephone Co., Inc., Elkhart, KS 67950

FairPoint Communications (Sunflower Telephone Company and Bluestem Telephone Company)
Dodge City, KS 67801

Golden Belt Telephone Assn., Rush Center, KS 67575

Gorham Telephone Co., Inc., Gorham, KS 67640

H & B Communications, Inc., Holyrood, KS 67450

Haviland Telephone Co., Inc., Haviland, KS 67059

Home Telephone Co., Inc., Galva, KS 67443

JBN Telephone Company, Inc., Holton, KS 66436

KanOkla Networks, Caldwell, KS 67022

LaHarpe Telephone Co., Inc., LaHarpe, KS 66751

Madison Telephone, LLC, Madison, KS 66860

Moundridge Telephone Co., Inc., Moundridge, KS 67107

Mutual Telephone Company, Little River, KS 67457

Peoples Telecommunications, LLC, LaCygne, KS 66040

Pioneer Communications, Ulysses, KS 67880

Rainbow Telecommunications Assn., Everest, KS 66424

Rural Telephone Service Co., Inc., Lenora, KS 67645

S & A Telephone Company, Allen, KS 66833

S & T Telephone Coop Assn., Inc., Brewster, KS 67732

South Central Telephone Assn., Inc., Medicine Lodge, KS 67104

Southern Kansas Telephone Co., Inc., Clearwater, KS 67026

Total Telephone Company, Inc., Ochelata, OK 74051 (serving telephone exchanges in Southeast Kansas)

Tri-County Telephone Assn., Inc. (and Council Grove Telephone Company)
Council Grove, KS 66846

Twin Valley Telephone, Inc., Miltonvale, KS 67466

United Telephone Assn., Inc., Dodge City, KS 67801

Wamego Telecommunications Co., Inc., Wamego, KS 66547

Wheat State Telephone, Inc., Udall, KS 67146

Wilson Telephone Co., Inc., Wilson, KS 67490

Zenda Telephone Co., Inc., Zenda, KS 67159