QSI Consulting Audit Report

The Efficiency and Effectiveness of the Kansas Universal Service Fund

Presentation to the Telecommunications Study Committee December 16, 2014

Report Presentation

Warren Fischer, C.P.A. • James Webber, M.S.E. • Olesya Denney, Ph.D. • Scott Lundquist



Who is QSI Consulting?

 A privately-held consulting firm specializing in the economics of regulated network industries, including telecommunications and energy.



QSI

Audit Requirements

Information Flow

Scope of Work Tasks

Report Content & Documentation Reviewed

Key Analyses, Findings & Recommendations



Ambi Report - KUSI **Executive Summary**

The Kansas Legulature's Telecommunications Study Committee ("Committee") directed QSI Committing, Inc. ("QSI") to undertake a broad process-oriented, operational and economic node of the Kansas Universal Service Fond ("KUSF"). Target insides focused on regulatory policy aspects as well as detailed operational and economic sisters impacting the mechanics of the KUSF's administration. Sections 2 through 11 of this Report systematically address each of the Committee's target questions in the order in which they were identified in the Scope of Work. This approach allows the reader to review, on a detailed point-by-point basis, topics and assocs of interest to the Committee. However, immediately below we provide our high level conclusions

As a general matter, we conclude that the KUSF is well rim, with audit and affiliate hanoaction related procedures in place to ensure the find a appropriately ared given current rules for calculuting local enchange carrier (ELCY) sorts, and that contributions are collected from the correct companies and distributions to recipient carriers are effectively immaged. Further, the passing of House Bull 2791 has a fact-to-to-yl enimando or capped extra particular the KUSF and set offset portions on a globe posit toward elimination by 2018. These steps ensure the KUSF does not give so and control as a appear facilitat successful control (TUSF 7) programs had done in years preceding the Federal Communications Commission's ("FCC") aweeping universal

Section 1 - KUSE Chargers

- . The KUSF was created by the enact Legislature. House Bull 2728 director establish the KUSF by January 1, 199 the funding necessary to make infrast 'universal service' and 'enhanced u
- Under House Bell 2728, "universal s single-party voice grade telephone se capabilities. Enlisticed universal ser to upgrade their networks to prevadu extending broadband-capable facilitie and local government facilities that
- operation of the KUSF House Bill . control over the KUSF through the e elimination of, KUSF support for ce

A. Summary and Purpose of Kansas Universal Service Fund

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Auda Report - KUSF

Section I. Kausas Universal Service Fund Overview and Project Sco B Andit Scope

C Audit Report Organization

A. Objectives and Scope B Analysis

1. Scope of Work Section A.1 - Review and Assessment of Current (2013) Statutes. i Adequacy of KCC Authority Under Statutes

Assessment of Statutory Incentives for Investment and Cost Comrola. ni Impact of Hypothetical Line Losses on KUSF

Audit Report

The Efficiency and Effectiveness of the Kansas Universal Service Fund

udit Processes Over KUSF Support ulized (Scope of Work A 2 a)? Support Audits Remonable KUSF Support a Company 24 20 the Roles of the KCC and Ditrd Party ual KUSF Support Received Per Company

October 2014







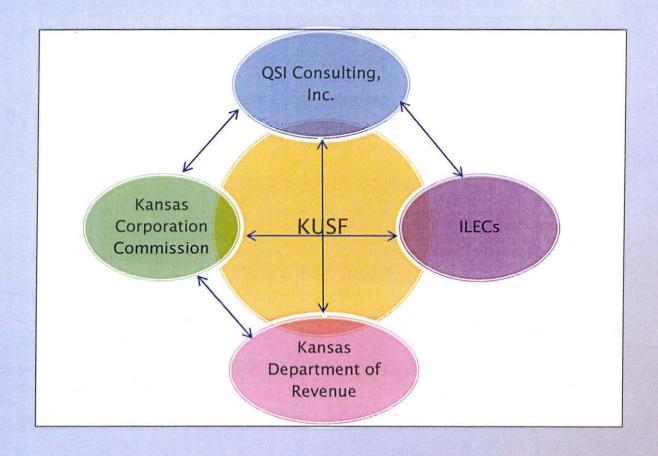
QSI CONSULTING, INC

➤ House Bill 2201 Audit Requirements

- Telecommunications Study Committee tasked with commissioning audit.
- Audit administered by Kansas Department of Revenue.
- * Auditor to produce a detailed report documenting:
 - Its evaluation of Kansas statutes and rules governing the operation of the KUSF;
 - The review of the Kansas Corporation Commission's ("KCC") audit process of the KUSF;
 - Analysis of factors that determine the level of KUSF support for recipients from 1996 - 2013; and
 - Identification of quantifiable benefits of the KUSF program.

INFORMATION FLOW

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- > 10 tasks segmented by three Scope of Work sections
- > Sections in gray below highlighted in this presentation

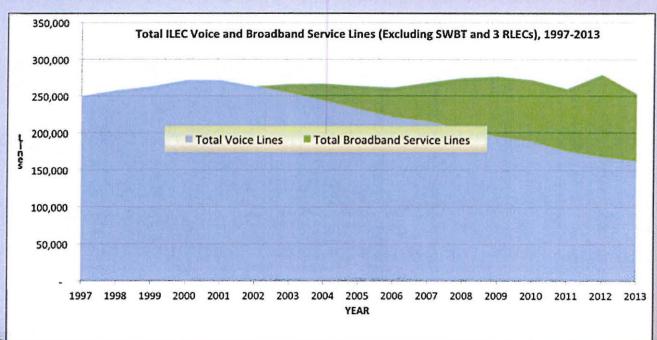
ALIDET GCODE OF WORK		REPORT SECTION			
AUDIT SCOPE OF WORK	#	Title			
A - Process-Oriented Review	2	Assessment of Kansas Statutes and Governmental Review Processes			
	3	Factors that Determine How Much KUSF Support a Company Receives			
B - Analysis of Operations	4	Historical Analysis of KUSF Support Receive			
	5	Rural Utility Service and Other Debt with Nexus to KUSF			
	6	Capital Expenditures Analysis			
	7	Telephone Competitors by Modality			
	8	Affiliate Transactions and Transfers with a Nexus to KUSF			
	9	Analysis of Companies with High KUSF Support Per Line			
	10	Review of the KCC's Performance			
C- Economic Assessments	11	Benefits Achieved by the KUSF and its Impact on Local Rates			

- Executive Summary over 40 findings & recommendations by section.
- Report narrative 175 pages documenting work performed by task.
 - 54 charts
 - 35 tables
- Public appendix 17 tables containing more granular detail than condensed version in report narrative.
- Confidential appendix 13 tables and charts with more granular detail than in report narrative and confidential company-specific data (available to KCC Staff only).

- Kansas statutes
- > KCC orders and rules
- KCC Staff testimony and rate case audit analyses
- Annual reports for 40 companies over 17 years (approximately 680 reports)
- > ETC certification reports
- ➤ Independent auditor reports for each year in audit period
- Three sets of data requests to the ILECs for detailed accounting information excluded from annual reports:
 - historical plant investment
 - cable & wire linear mileage
 - broadband service line counts
- ➤ Industry statistics published by the FCC and NECA
- Materials on other state USF programs

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- Key industry trends affecting ILEC operations and their need for KUSF support.
 - ❖ ILEC Voice lines have decreased approximately by −6% per year, and by −64% in total from 1997 2013.
 - ❖ ILEC Broadband Service lines have grown roughly 22% per year since 2003 helping to compensate for the long-run erosion in the ILEC Voice line customer base.
 - ❖ The compensatory effects of Broadband Service may be under-represented by these figures, because residential Broadband Service is often purchased as a bundle that also includes a VoIP line, which is not captured by the Voice line counts reported to the KCC.



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SECTION 2 – Assessment of Kansas Statutes and Governmental Review Processes

- > Do the statutes provide incentives to control existing cost?
 - YES
- ➤ Do the statutes allow for investment in broadband, cable VoIP and other non-telecommunications services?
 - ❖ Statutes are silent regarding the relationship between KUSF support and investment in broadband, cable Voice over Internet Protocol ("VoIP"), or other services that may not be considered telecommunication services.

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SECTION 2 – Assessment of Kansas Statutes and Governmental Review Processes

- Impact of Hypothetical Line Losses on KUSF Support Received by Carriers:
 - CenturyLink: Support falls proportionally to line counts
 - · Rural LECs: Support likely to increase; interplay of many factors

IMPACT OF LINE LOSSES ON CENTURYLINK'S COST-BASED SUPPORT
UPPER BOUND OF KUSF SUPPORT CHANGES
USING FISCAL YEAR 17 AND 18 AMOUNTS (rounded to '000s)

	FISCAL YEAR 17		FISCAL YEAR 18 (Estimated)	
COST-BASED SUPPORT	\$	9,487,000	\$	9,544,000
CHANGE DUE TO 10% LINE LOSS	\$	(949,000)	\$	(954,000)
CHANGE DUE TO 25% LINE LOSS	\$	(2,372,000)	\$	(2,386,000)
CHANGE DUE TO 50% LINE LOSS	\$	(4,744,000)	\$	(4,772,000)

Cost-based KUSF support is impacted by changes in federal USF support each year.

IMPACT OF LINE LOSSES ON RATE OF RETURN LECS COST-BASED SUPPORT ESTIMATED KUSF SUPPORT IMPACT BASED ON HISTORICAL TRENDS USING FISCAL YEAR 17 AMOUNTS (rounded to '000s)

				CAL YEAR 17
		ACTUAL SUPPORT	\$	26,513,000
SCENARIO 1 10% LINE LOSS	THE LESSER OF ===>	EXPECTED INCREASE BASED ON TREND OF HISTORICAL FACTORS	\$	1,502,000
		MAXIMUM INCREASE WITH THE CAP	\$	3,487,000
SCENARIO 2 25% LINE LOSS THE LESSER OF	THE LESSER OF ===>	EXPECTED INCREASE BASED ON TREND OF HISTORICAL FACTORS	\$	286,000
		MAXIMUM INCREASE WITH THE CAP	\$	3,487,000
SCENARIO 3 50% LINE LOSS	THE LESSER OF ===>	EXPECTED (DECREASE) BASED ON	0	
	THE LESSER OF ===>	TREND OF HISTORICAL FACTORS MAXIMUM INCREASE WITH THE CAP	\$	3,487,000

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SECTION 2 – Assessment of Kansas Statutes and Governmental Review

- Adequacy of KCC Audit Processes over KUSF Support Determination
 - ❖ Are standard processes being utilized (Scope of Work A.2.a)?
 - ✓ YES
 - ❖ Is the time to complete KUSF support audits reasonable?
 - ✓ YES
 - Were the audit processes consistent across companies?
 - ✓ YES

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SECTION 3 – Factors Affecting Calculation of KUSF Support

Key Finding

- ❖ FCC separations and cost allocation rules used to determine KUSF support for rate-of-return RLECs are outdated:
 - They allocate majority of loop costs to traditional voice services.
 - Investment in broadband-capable loop facilities supports not only traditional voice, but also data services.

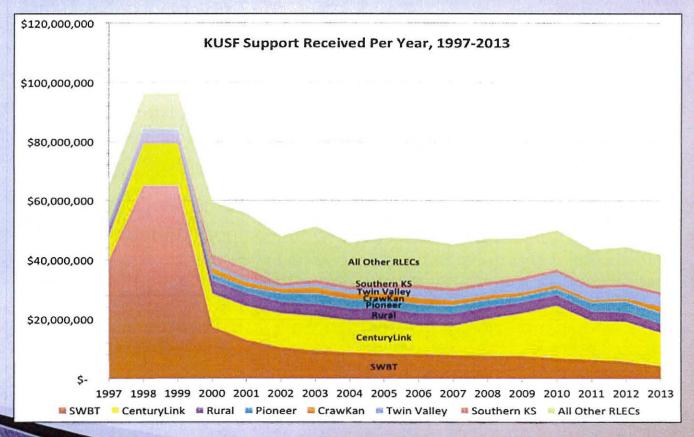
Recommendation

- KCC should be directed to consider a cost allocation mechanism to trace costs to voice and data services. Some possible allocation mechanisms are:
 - Equal proportion allocation of jointly used network facilities (50% voice / 50% broadband).
 - Relative average revenue per line from each type of service.
 - Relative bandwidth usage.

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SECTION 4 – Historical Analysis of KUSF Support Received

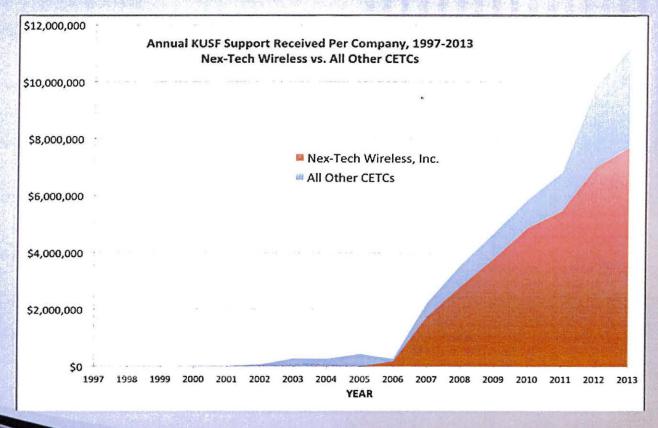
➤ Total annual KUSF payouts to ILECs have fallen substantially over time, from a high of \$96.4M in 1998, to \$41.9M in 2013. SWBT's support ended in January 2014 pursuant to HB 2201. No RLEC has received more than \$5.0M in a given year.



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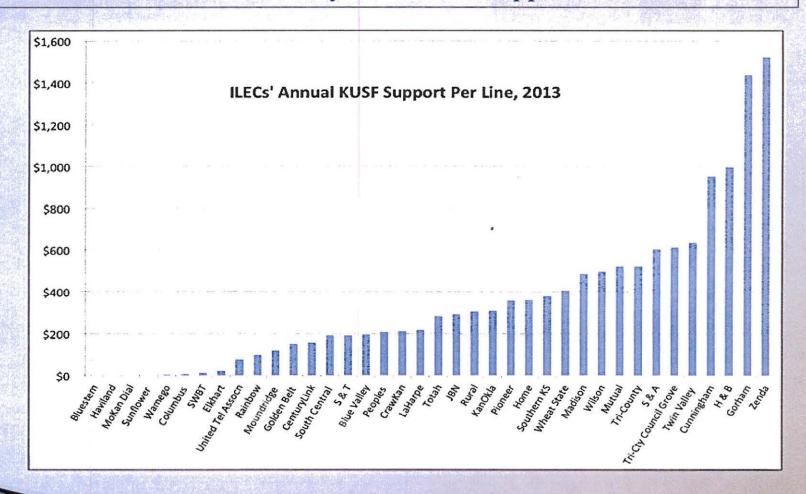
SECTION 4 – Historical Analysis of KUSF Support Received

➤ Total CETC support grew at an average rate of nearly 50% annually from 2005 - 2013, to some \$11.2M overall due primarily to support paid to Nex-Tech Wireless, which has received 75% of the total KUSF support paid to CETCs since 2005.



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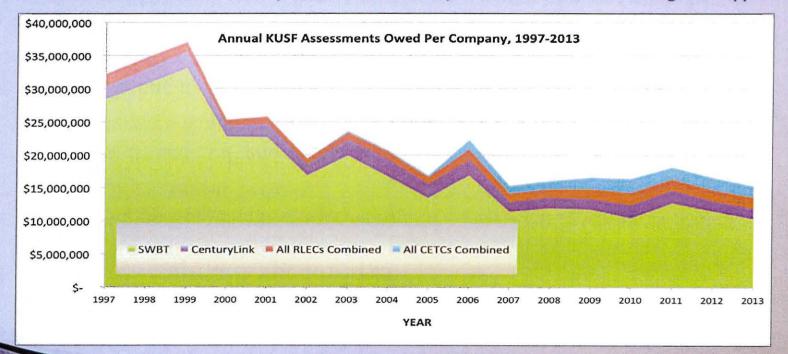
SECTION 4 – Historical Analysis of KUSF Support Received



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SECTION 4 – Historical Analysis of KUSF Support Received

- KUSF assessment trend:
 - ❖ (1) SWBT has incurred the largest annual assessments over the span of the fund, (2) the overall level of assessments on ILECs and CETCs combined has fallen over time, and (3) the CETCs were responsible for a growing share during 2005 through 2010 as these trends primarily reflect changes in the size of the customer base (i.e., access line counts) on which the KUSF surcharges are applied.



SECTION 6 – Capital Expenditures

- ➤ KUSF support payments comprise roughly 23% of the average KUSF recipient's intrastate revenue.
- Combined state USF and FUSF support comprise approximately 51% of the average Kansas RLEC's total regulated revenues.
- ➤ KUSF recipients' total annual capital expenditures have averaged roughly \$267 million, or five times their average annual KUSF support payments since inception of the KUSF program.
- At least 7 carriers spent substantially less on capital improvements than they received in KUSF payments over the past 5 years. Most companies receive more in total support payments than they invest in plant and equipment when comparing combined state and FUSF payments to average capital expenditures for that same period.

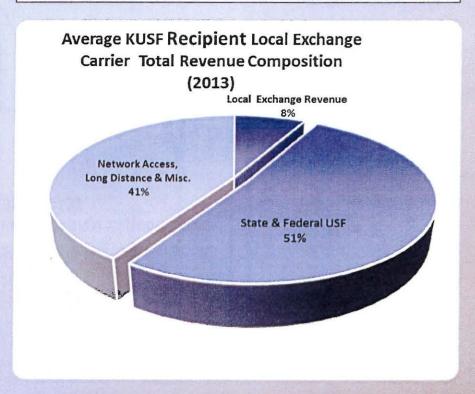
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SECTION 6 – Capital Expenditures

KUSF Support as a Component of Intrastate Revenue

Kansas Local Exchange Carrier Intrastate Revenue Components by **Company Size** (2013)\$3,000 \$2,500 \$2,000 \$1,643 \$1,500 \$1,174 \$1,000 \$805 \$706 \$500 \$448 \$260 \$245 0-900 Lines 901-1800 Lines 1,801-3,700 Lines 3,700 + Lines Network Access, LD and Misc. Local **KUSF**

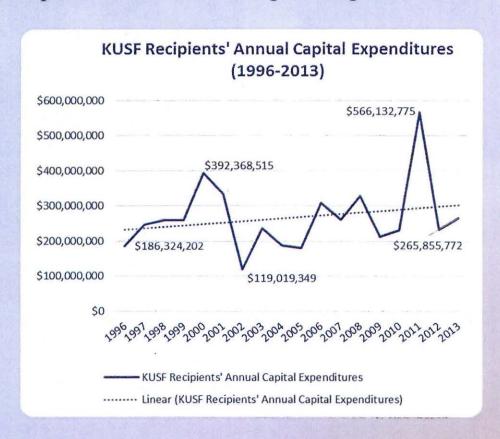
KUSF & FUSF Support as a Component of Total Revenue (Interstate & Intrastate)



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SECTION 6 – Capital Expenditures Analysis

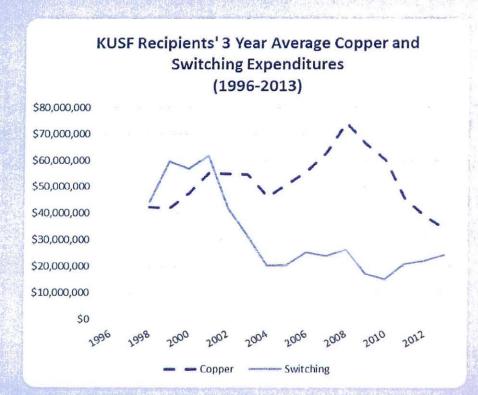
KUSF recipients' annual total capital expenditures:

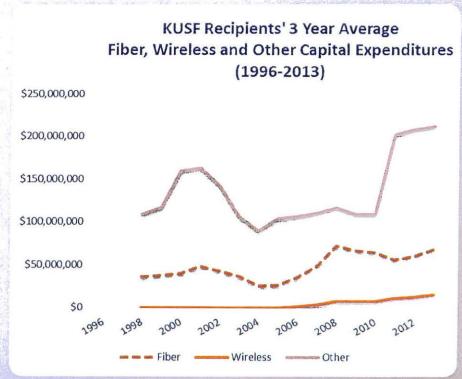


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SECTION 6 – Capital Expenditures Analysis

KUSF recipients' 3-year average capital expenditures:





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SECTION 7 – Telephone Competitors by Modality (type of service)

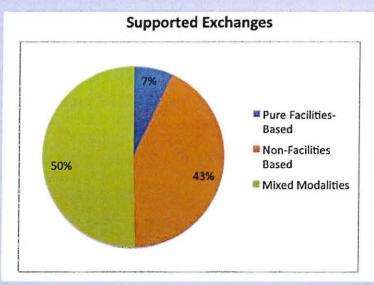
- Out of 550 telephone exchanges in Kansas, 390 (71%) are supported by the KUSF while 160 (29%) are not supported.
- There are no wireline competitors in 44% of KUSF supported exchanges (172 out of the 390) and in 11% of non-KUSF supported exchanges (17 of the 160).
- In the exchanges in which there has been competitive entry, supported exchanges average 2.8 competitors, while unsupported exchanges average 9.4 competitors.
- The great majority of exchanges have access to mobile wireless voice service and coverage of at least "3G" technology.

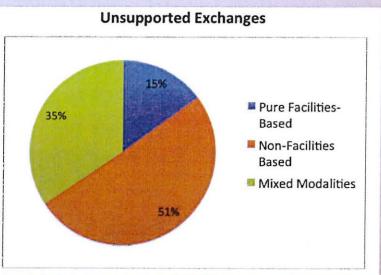
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SECTION 7 – Telephone Competitors by Modality

The frequency of pure Facilities-Based competitors in supported exchanges is about half that seen in unsupported exchanges (7% vs. 15%, respectively).

Frequency Distributions of Competitors by Modality (Non-Facilities Based Category includes Resale and UNE Platform)





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- Nine RLECs in the top quartile (top 25% of carriers) of KUSF recipients when measuring support on a <u>per line</u> basis over the last 3 years:
 - Council Grove
 - 2. Cunningham
 - 3. Gorham (lowest over 3-year period: \$370 in 2011)
 - 4. H&B
 - 5. Mutual
 - 6. S&A
 - 7. Tri-County
 - 8. Twin Valley
 - 9. Zenda (highest over 3-year period: \$1,521 in 2013)
- Median annual per line KUSF support across all Kansas ILECs was \$280 during the same period.

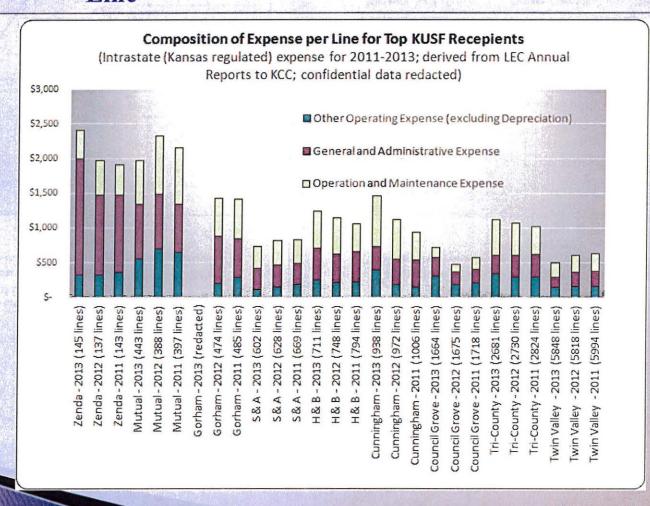
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- Factors contributing to high levels of KUSF support per line:
 - The top KUSF recipients tend to be smaller than other companies in the state.
 - Scale economies are significant with respect to the cost of General and Administrative services: the smallest company among top KUSF recipients (Zenda) had the highest per line General and Administrative Expense, and the largest company among top KUSF recipients (Twin Valley Telephone) had the smallest per line General and Administrative Expense.
 - The top KUSF recipients tend to have newer telecommunications plant (lower percentage of depreciated plant) than other similarly sized Rural LECs.

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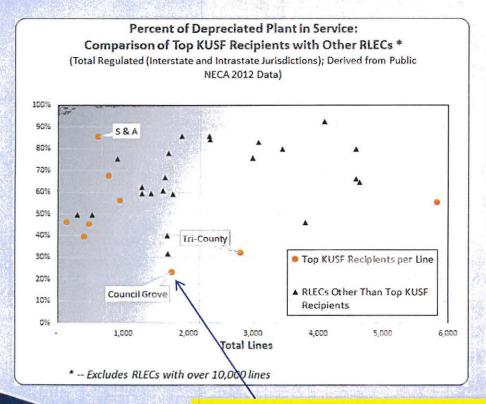
- Top KUSF recipients on a per line basis do <u>not</u> stand out from other similarly sized RLECs with respect to the following metrics:
 - Population density.
 - * Route miles per line.
 - Operation and Maintenance Expense.

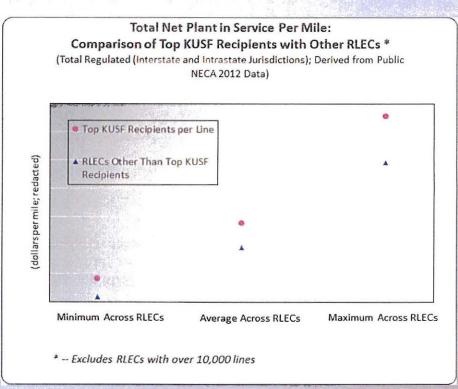
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SECTION 9 – Analysis of Companies with High KUSF Support Per Line





Council Grove – highest proportion of new plant (over 75%).

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SECTION 11 – Benefits Achieved by KUSF

- ➤ Benefits of the <u>KUSF</u> include the following:
 - ❖ KUSF support paid out from 1997-2013 \$0.979B. Large ILECs (SWBT and CenturyLink) as a group received approximately 51% of this funding, followed by the RLECs (44% of cumulative KUSF funding).
 - On a net basis (when contributions are subtracted from distributions), RLECs benefited most from the KUSF (receiving as a group in excess of \$0.4B over 1997-2013).

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SECTION 11 – Benefits Achieved by KUSF

- ➤ Benefits of <u>FUSF</u> support between 1998¹ and 2013:
 - * Kansas received significantly more FUSF moneys (\$2.6B) than it contributed to the FUSF (\$0.9B)
 - FUSF disbursements to Kansas LECs were over \$1.6B greater than KUSF support disbursements.
 - * RLECs received approximately 70% of FUSF funding for Kansas (\$1.6B). On a net basis (when contributions are subtracted from distributions), the RLECs received an even larger share of total FUSF funding for Kansas 94%.

¹ – 1998 was the first full year during which FUSF was operational

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SECTION 11 – Benefits Achieved by KUSF

- ➤ Combined Benefits of KUSF and FUSF support:
 - RLECs accounted for approximately 60% of the combined federal and state USF distributions over the period 1997-2013.
 - ❖ Kansas is one of the leaders in broadband service penetration and availability in rural areas. Support from both federal and Kansas USFs should be credited for broadband availability in rural Kansas because both mechanisms compensate RLECs for actual investment in the network.

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SECTION 11 – Benefits Achieved by KUSF

- Effect of the KUSF on Local Rates:
 - ❖ Local rates of RLECs receiving KUSF support are, on average, \$16.58 per line per month for residential lines, and \$19.72 for business lines.
 - * Rates of ILECs who do not receive KUSF support are slightly lower than the average rates of KUSF recipients, except for SWBT whose current rates are \$24 per residential line, and \$72.80 per business line per month.
 - Local rates would have likely been higher than actual rates if the KUSF subsidy was not available.

Comparison of Local Rates for Companies Receiving and not Receiving KUSF *

Company Type	Average Flat-Rate Local Exchange Rates			
	Res	Business		
RLECs Receiving KUSF in 2013	\$	16.58	\$	19.72
RLECs Not Receiving KUSF in 2013	\$	15.09	\$	18.78
CenturyLink (Receives KUSF)	\$	17.73	\$	28.66
SWBT (Received KUSF up to 2013)	\$	24.00	\$	72.80

^{*--} Compiled from LEC tariffs. SWBT's rates, which are de-tariffed, are taken from its Guidebook (effective as of September 2014).

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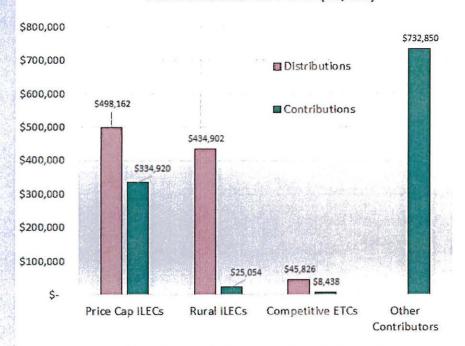
SECTION 11 – Benefits Achieved by KUSF

- Comparison of Kansas local rates to other states:
 - Local rates show significant variation across the country: A high of \$71.34 (CenturyLink (United Telephone) Wyoming) and a low of \$5 (several unnamed companies in a NECA filing to the FCC). The lowest residential RLEC rate in Kansas is \$13.27 (Sunflower), and the highest is \$24.70 (Southern Kansas' rate in the highest rated zone).
 - ❖ Approximately 20% of RLEC lines nationwide have residential rates below \$16 (the level just slightly lower than the average Kansas RLEC residential rates).
 - Nationwide urban rates have been on average higher than the Kansas RLEC rates. The gap is more pronounced for business rates compared to residential rates. Rates for Kansas large ILECs are on average higher than nationwide urban rates.

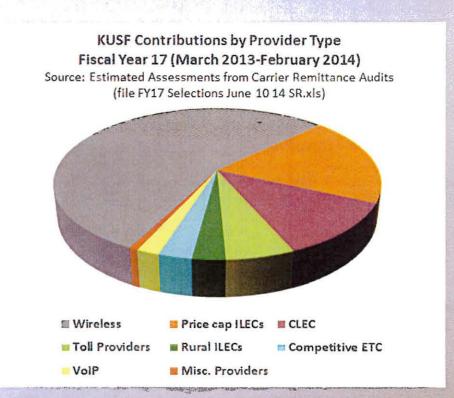
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SECTION 11 – Benefits Achieved by KUSF

KUSF: Distributions and Contributions by Company Type Cumulative over 1997-2013 (in \$000)*

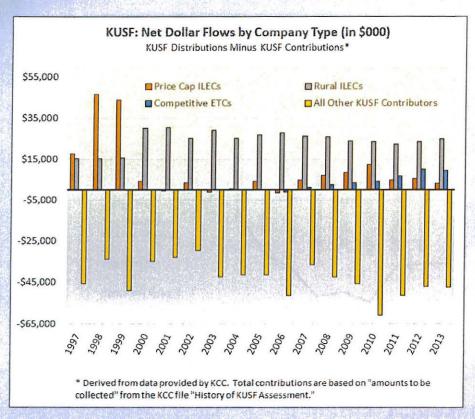


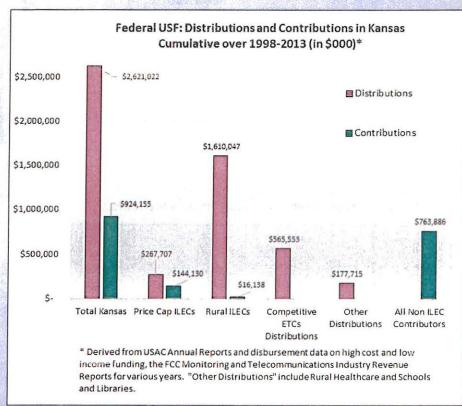
* Derived from data provided by KCC. Total contributions are based on "amounts to be collected" from the KCC file "History of KUSF Assessment."



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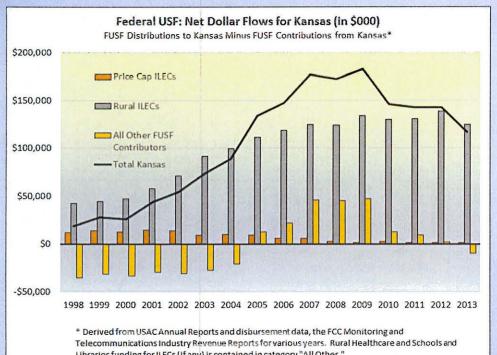
SECTION 11 – Benefits Achieved by KUSF



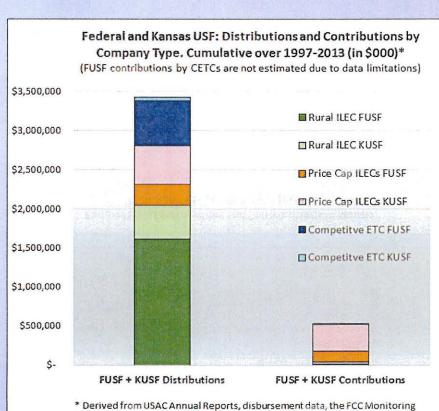


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SECTION 11 – Benefits Achieved by KUSF



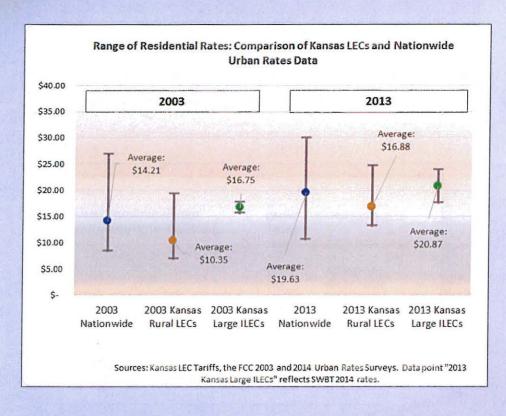
Libraries funding for ILECs (if any) is contained in category "All Other."

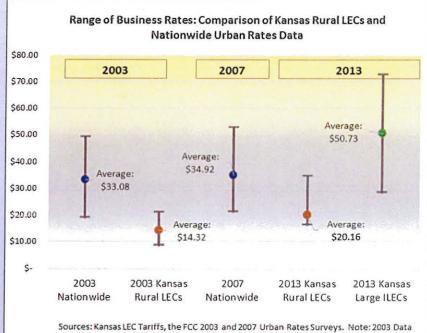


and Telecommunications Industry Revenue Reports for various years and data provided by KCC. FUSF Contributions of Competitive ETCs are not estimated.

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SECTION 11 – Benefits Achieved by KUSF





on Kansas large ILECs are not available. FCC has not collected business urban rates after 2007. Data point "2013 Kansas Large ILECs" reflects SWBT's 2014 rates.

CONTACT INFORMATION

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Warren R. Fischer, C.P.A.

Chief Financial Officer

voice 303 722 2684 fax 303 733 3016 mobile 303 883 9014

wfischer@qsiconsulting.com www.qsiconsulting.com 2500 Cherry Creek Drive South

Suite 319

Denver, Colorado 80209-3279



James Webber

Senior Vice President

voice 630.904.7876 fax 866.445.6157 mobile 312.952.6694

jwebber@qsiconsulting.com www.qsiconsulting.com 4515 Barr Creek Lane Naperville, IL 60564-4343