

THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

Before Commissioners: John Wine, Chair
 Cynthia L. Claus
 Brian J. Moline

In the Matter of an Investigation into the)
Kansas Universal Service Fund (KUSF)) Docket No. 99-GIMT-326-GIT
Mechanism for the Purpose of Modifying)
the KUSF and Establishing a Cost-based)
Fund.

**ORDER 16: DETERMINING THE KANSAS-SPECIFIC INPUTS
TO THE FCC COST PROXY MODEL TO ESTABLISH
A COST-BASED KANSAS UNIVERSAL SERVICE FUND**

The above-captioned matter comes on before the State Corporation Commission of the State of Kansas (Commission) for consideration and decision. Having reviewed the files and being fully advised of all matters of record, the Commission finds and concludes as follows:

EXECUTIVE SUMMARY

The Commission began this inquiry to determine carriers' costs of providing basic telecommunications services in Kansas. We embarked on this phase of the proceeding to modify the Kansas Universal Service Fund (KUSF) so as to distribute support to telecommunications carriers where needed, on the basis of their projected higher cost to provide basic service in certain areas in Kansas.

When the Legislature enacted the Kansas Telecommunications Act in 1996, it established a three-year transitional period for the KUSF. During its initial phase, the fund size was determined by the amount necessary to replace revenues that telecommunications

carriers lost as a result of reducing their intrastate access charges, as required by the Kansas Act. Thereafter, the statute directs the Commission to review the KUSF in conjunction with a study of the costs of providing universal service in Kansas, and modify the KUSF accordingly.

There is a significant distinction between the initial transitional phase of the KUSF established by statute, and the second phase modifications we are making by this order to the KUSF for implementation beginning March 1, 2000. Specifically, during the initial phase, KUSF distributions were limited to ensuring revenue neutrality to incumbent carriers to offset legislatively mandated reductions in intrastate access charges. In contrast, in this second phase, we determine the process for using the KUSF to support the availability of universal telephone service to high-cost locations in Kansas, at rates that are reasonably comparable between rural and urban areas as mandated by federal and state legislation. In order to do so in a competitively neutral manner, which is also a statutory requirement, we adopt a method to target KUSF support to the highest cost locations in Kansas, and ensure that KUSF support will be portable to eligible competitors.

In an earlier phase of this proceeding, the Commission adopted the Federal Communication Commission's forward-looking cost model as the basis for determining an objective economic valuation of carriers' universal service costs. The FCC's forward-looking cost model does not necessarily replicate the costs that carriers have incurred to provide telecommunications services, but rather represents the costs that an efficient carrier, using the best available technology, would experience in serving Kansas areas. In this proceeding, the Commission has adapted the FCC's cost model for Kansas conditions, to ensure that nationally-established values for model variables are modified to fairly reflect relevant distinguishing circumstances in Kansas.

In comprehensive meetings before the hearing, in which virtually all the differing

interests were represented and participated, the parties agreed to most of the input variables for the Kansas version of the cost model. The FCC's model includes some 1400 different variables to account for various state conditions. The parties agreed to use almost all the original FCC model inputs, with certain limited exceptions. Further, the parties jointly agreed to several "baseline" adjustments to variables in the cost model. Therefore, most of the contentious issues were resolved through debate and negotiation among the parties, leaving relatively few issues in dispute prior to the hearing on November 30, 1999.

Commission Staff proposed four additional modifications to the FCC's default variables, based on its analysis of Kansas conditions. For example, Staff developed different groupings of customer locations than the model projected, and different factors for carriers' sharing of cable facilities. While Staff's recommended adjustments were based on conditions generic to Kansas, Sprint proposed a number of company-specific adjustments to the default inputs based primarily on its own operating experience in the areas it serves within Kansas. Areas presently served by Sprint are more rural in nature than most of SWBT's current service areas, although under the Kansas Act, neither company is defined as a "rural telephone company."

The Commission generally adopts the Staff modifications, but not the company-specific changes proposed by Sprint. The Commission concludes that the FCC's cost model should be tailored to Kansas-specific conditions, not to company-specific conditions. This methodology ensures that the Kansas-specific changes are limited, representing conditions that may affect all companies operating in Kansas, not just the incumbents. Further, Kansas-specific adjustments reflect an objective standard of operating efficiency rather than any one company's costs, which may be higher than a potential competitor's costs for providing the same service.

The Commission has made a number of other decisions to implement the KUSF in a fair and competitively neutral manner. For example, the Commission has adopted a zone-targeting approach for the distribution of support. Carriers' KUSF support will be allocated into two zones, reflecting higher and lower-density parts of the wire center. In this manner, the Commission will target payments to the higher-cost zones, prioritizing support for the most costly access lines, which are generally located in rural areas.

The Commission's model for calculating the cost of providing universal service in Kansas produces an estimated average cost of \$ 29.16 per month per line throughout Kansas, including the costs of all locations. The Commission has determined that all wire centers where the average cost of providing universal service exceeds 125% of the statewide average, or \$36.45 per month per line, should be eligible for support from the KUSF, as long as the total amount of support for the wire center is at least \$500 per month.

The amount of cost-based KUSF support will be reduced by 24% to reflect the amount of high-cost support that continues to flow to carriers from interstate access charges. Both the FCC and the Commission have determined that 24% reasonably estimates carriers' high costs that are currently subsidized by interstate access charges, although the actual percentage varies among companies.

The Commission's modification of the KUSF to a cost-based support mechanism is consistent with state and federal law. As we shift the KUSF from a transitional support mechanism offsetting mandatory access rate reductions to a fully cost-based fund, revenue neutrality for incumbent telephone companies will no longer be a criterion for KUSF distributions. Our modifications to the KUSF will also ensure that the fund is administered in a competitively neutral manner, as required by Kansas and federal law. Support from the KUSF provided to incumbent carriers will be fully portable to

competitors that are designated as eligible telecommunications carriers for the provision of universal service in Kansas. Further, we have established a method for reviewing the impact of our decisions on rates, so that we may monitor the extent to which the carriers implement these modifications in a manner that ensures reasonably comparable rates between urban and rural areas for similar services, as required by the Federal Telecommunications Act of 1996.

Finally, the net impact of our decisions in this proceeding will significantly reduce demands on the KUSF beginning in the Year 2000, which will benefit consumers and carriers alike by reducing assessments required to support the fund.

I. BACKGROUND AND PROCEDURAL HISTORY

1. The Commission initially established a revenue-neutral KUSF in Docket 94-GIMT-478-GIT, in accordance with K.S.A. 1998 Supp. 66-2008(a). *See* Docket 94-GIMT-478-GIT, Order issued December 27, 1996; Order on Reconsideration issued February 3, 1997. Upon appeal of the orders in that docket, the Kansas Supreme Court found that the revenue-neutral nature of the fund was transitional. *Citizens' Utility Ratepayer Bd. v. Kansas Corporation Comm'n*, 264 Kan. 363, 384, 956 P.2d 685 (1998).

2. The Commission subsequently initiated this docket with its Order 1 on November 6, 1998, to consider modifications to the Kansas Universal Service Fund (KUSF) to establish a cost-based fund, pursuant to K.S.A. 1998 Supp. 66-2008(d) and Section 254(f) of the Federal Telecommunications Act of 1996. Order 1, ¶ 4. The Commission determined that all certificated telecommunications providers doing business in Kansas would be parties to this proceeding. However, the Commission directed those parties who wanted to receive all documents filed in this docket to enter appearances. In any event, all parties would receive the order setting forth the final agency action in this

proceeding. *Id.* ¶ 7.

3. The following parties filed entries of appearance: The Independent Telecommunications Group, Columbus et al. (Columbus); Liberty Cellular, Inc. (Liberty); CMT Partners, Airtouch Cellular of Kansas Inc. and Topeka Cellular Telephone Company (jointly referred to herein as CMT Partners); United Telephone Company of Kansas, United Telephone Company of Eastern Kansas, United Telephone Company of Southcentral Kansas, United Telephone Company of Southeastern Kansas, Sprint Communications Company L.P. and Sprint L.P. d.b.a. Sprint PCS (jointly referred to herein as Sprint); AT&T Communications of the Southwest, Inc. (AT&T); Southwestern Bell Telephone Company (SWBT); the State Independent Alliance (SIA); Westel, Inc. (Westel); MCI Telecommunications Corporation (MCI); Brooks Fiber Communications, Western Wireless Corporation, Birch Telecom of Kansas, Inc. and Multimedia Hyperion Telecommunications, Inc. (referred to herein as Brooks); and 1-800-RECONEX (Reconex). The Citizens' Utility Ratepayer Board (CURB) was granted intervenor status on November 23, 1998.

4. On April 27, 1999, pursuant to Order 5, Commission Staff, CURB, Sprint, Columbus, SIA, AT&T, SWBT and Western Wireless filed direct testimony addressing the issues delineated in that Order. Rebuttal testimony was filed on May 24, 1999, by Commission Staff, CURB, Sprint, Columbus, SIA, AT&T and SWBT. The hearing on the issues commenced on June 14, 1999 and concluded June 17, 1999.

5. Based upon the evidence adduced in the hearing, the Commission issued Order 10 on September 30, 1999, which found, among other things, that (1) the KUSF support for a specific location should be based upon the forward-looking cost to provide service at that location; (2) the FCC Cost Proxy Model would be used to determine the

costs to provide service at the wire center¹ level for SWBT and Sprint; (3) the modification of KUSF support for areas served by rural incumbent local exchange companies would be delayed in recognition of the FCC's continuing efforts to refine the cost model for determining support for smaller companies in rural areas; (4) the FCC model inputs should be used as a starting point, but modifications to the input values would be considered to reflect Kansas-specific conditions or costs; (5) the goal of universal service is best achieved by providing KUSF support only for the primary line of the residential customer; (6) components of calculated universal service costs should be properly matched with the components that form the basis of the benchmark eventually determined by the Commission; (7) any double-recovery of costs to provide service that may be occurring by virtue of the KUSF and the federal Universal Service Fund will be addressed in company-specific dockets; (8) a subsidy exists when the price being charged for a service cannot be sustained over time, absent that subsidy; (9) any rate rebalancing will be addressed in company-specific dockets; and, (10) all eligible telecommunications carriers (ETCs), regardless of technology, are eligible to receive KUSF support.

6. The Commission also established a procedural schedule in Order 10 which included filing of direct and rebuttal testimony regarding input values for the FCC Cost Proxy Model, the cost to serve customers outside the base rate area (OBRA), the cost to provide universal service in SWBT and Sprint wire centers, and the appropriate benchmark to be used. Based upon the anticipated release by the FCC of its updated Cost Proxy Model and input values on November 1, 1999, the Commission issued Order 11 in which it instructed the parties to address the FCC's order in their prefiled testimony. The

¹¹A wire center is defined as the location of a local switching facility containing one or more central offices. The wire center boundaries define the area in which all customers served by a particular wire center are located. 47 C.F.R. § 54.5, as amended by Ninth Report and Order, CC Docket No. 96-45 (FCC 99-306) (released Nov. 2, 1999).

Commission also extended the deadline for filing direct testimony to November 10, 1999, and rebuttal testimony to November 16, 1999.

7. On October 26-27, 1999, Commission Staff conducted an “Inputs Workshop,” or technical conference, with the parties to resolve as many issues as possible prior to the hearing. The parties jointly developed a number of Kansas-specific model inputs that the parties considered reasonable to use as the baseline for Kansas.² See Memorandum to Commissioners from Gerald Lammers, November 16, 1999. The parties also identified several disputed issues to be resolved by the Commission following the hearing. *Id.* at 2 & Attachment 1.

8. Following extensive negotiations, the parties stipulated that they would file testimony on a cost-based benchmark only. The Commission approved that stipulation in its Order 12 dated November 1, 1999. Due to the fact that the FCC delayed the release of its model inputs, the Commission in Order 14 further extended the deadline for filing direct and rebuttal testimony to November 16 and November 22, 1999, respectively. The hearing was also deferred by the Order to commence November 30.

9. On November 16, 1999, direct testimony was filed in this proceeding by Commission Staff, CURB, AT&T, SWBT, Sprint and SIA. With the exception of SIA, those parties also filed rebuttal testimony on November 22, 1999. The hearing opened at 9:00 a.m. on November 30, 1999, and concluded at approximately 5:00 p.m. on the same day.

10. On November 29, 1999, Staff filed a Motion requesting that the Commission allow Staff to substitute schedules 13, 14 and 15 to its direct testimony and schedule 3 to its rebuttal testimony. The revised schedules incorporate updated line counts for SWBT,

² The Commission acknowledges the parties’ unanimous agreement that any consensus on input values in this proceeding shall not bind any party in any other proceeding. *Id.* at 2.

based on information included in prefiled rebuttal testimony on behalf of SWBT. Tr. at 893. At the commencement of the hearing, the Commission granted the motion to substitute the schedules without objection. Tr. at 894.

II. LEGAL AUTHORITY

11. Both federal and state law govern the KCC's determination of a high-cost fund mechanism. Under Section 254(f) of the Federal Telecommunications Act of 1996 (Federal Act), a state may develop its own high cost fund to supplement federal universal service support, as long as the mechanism is "specific, predictable, and sufficient" to support the state's definition of universal service, and the state mechanism does not "rely on or burden Federal universal service support mechanisms."

12. The FCC has also interpreted the Federal Act to mandate a federal/state sharing of responsibility to ensure reasonably comparable rates between rural and urban areas. At Section 254(b), the Act requires that the FCC and the Federal-State Joint Board on Universal Service (Joint Board) base their universal service policies on certain principles. These include that consumers in rural areas of the nation have access to telecommunications and information services at rates that are "reasonably comparable to rates charged for similar services in urban areas." 47 U.S.C. § 254(b)(3). When it recently adopted its revised universal service plan, the FCC interpreted its role as promoting reasonably comparable rates between states in the nation, and defined the states' role as promoting reasonably comparable rates between urban and rural areas within the state. It stated:

[T]he primary federal role is to enable reasonable comparability among states (i.e., to provide states with sufficient support so that states can make local rates reasonably comparable among states), and the primary role of each state is to ensure reasonable comparability within its borders (i.e., to

apply state and federal support to make local rates reasonably comparable within the state).

In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Ninth Report and Order and Eighteenth Report and Order on Reconsideration, ¶ 38 (FCC 99-306) (released Nov. 2, 1999) [hereinafter Ninth Report and Order (FCC 99-306)].

13. The FCC has adopted the Joint Board's proposal that "reasonably comparable" rates refers to a "fair range" of rates, which means that support levels must be sufficient to prevent pressure from high costs and the development of competition from causing unreasonable increases in rates above current, affordable levels. *Id.* at ¶ 24 (citing Seventh Report and Order and Thirteenth Order on Reconsideration, CC Docket No. 96-45 (FCC 99-119), at ¶ 30 (released May 28, 1999)). The standard of reasonable comparability of rates for similar services requires consideration of the significant differences in the nature and extent of services generally available in rural areas as compared to urban areas. Direct Testimony of Johnson, at 71-72.

14. Under the Kansas Telecommunications Act of 1996 (Kansas Act), the Commission is required to establish and administer the Kansas Universal Service Fund (KUSF). K.S.A. 1998 Supp. 66-2002(h); 66-2008. The purpose of the KUSF is to advance the public policy goals set forth in K.S.A. 66-2001, which include "ensur[ing] that every Kansan will have access to a first class telecommunications infrastructure that provides excellent service at an affordable price" and "promot[ing] consumer access to a full range of telecommunications services, including advanced telecommunications services that are comparable in urban and rural areas throughout the state" K.S.A. 1998 Supp. 66-2001(a) and (c). In Docket No. 96-GIMT-478-GIT (190,492-U), as required by K.S.A. 1998 Supp. 66-2002(a) and (h), the Commission established the KUSF and determined that support would be provided for high-cost rural service, low-income

customers, and residential customers who would otherwise experience significant rate increases as a result of access charge reductions and rate rebalancing. Order issued December 27, 1996, Docket No. 96-GIMT-478-GIT (190,492-U), ¶ 5 (citing Order dated April 4, 1996, at 6, 12).

15. The Kansas Act also requires distribution of KUSF support to be made in a “competitively neutral manner” to any qualified telecommunications carrier that the Commission determines to be an eligible telecommunications carrier under both Section 214(e)(1) of the Federal Act and the Commission’s own guidelines. K.S.A. 1998 Supp. 66-2008(c). Further, the Kansas Act provides that beginning March 1, 1997, the KUSF administrator is to allocate KUSF support owed to each qualifying competitive telecommunications carrier in the same manner as distributions are made to incumbent local exchange carriers. K.S.A. 1998 Supp. 66-2009; *see also* K.S.A. 1998 Supp. 66-1,187(h) (defining “local exchange carrier”); (m) (defining “telecommunications carrier” to exclude incumbent local exchange carriers); (n) (defining “telecommunications public utility” to include jurisdictional telecommunications providers, including incumbent local exchange carriers). These sections of the Kansas Act suggest that the Legislature understood that KUSF support initially provided to incumbents would be portable to competitors so as to provide an incentive to competition.

16. Under state law, the initial amount of KUSF support was determined on the basis of the amount of revenues lost by incumbent local exchange carriers as a result of intrastate access reductions ordered by the Kansas Act. K.S.A. 1998 Supp. 66-2008(a); *see* K.S.A. 1998 Supp. 66-2005(c); 66-2007(a). However, the Kansas Act provided for a three-year transition period for non-rural incumbent telephone companies to reduce their intrastate access rates to interstate levels, with the objective of equalizing intrastate and interstate access rates in a “revenue neutral, specific, and predictable manner.” K.S.A.

1998 Supp. 66-2005(c). Thereafter, the Commission is required to periodically review the KUSF to determine whether the costs incurred by telecommunications carriers to provide local service warrant modifications to the KUSF. If the Commission determines changes are justified, it is directed to modify the KUSF accordingly. K.S.A. 1998 Supp. 66-2005(d).

17. The Kansas Supreme Court has acknowledged the transitional nature of the revenue neutral aspects of the KUSF as it moves to a cost-based fund. *Citizens' Utility Ratepayer Board v. Kansas Corporation Comm'n*, 264 Kan. 363, 385, 404, 413, 956 P.2d 685 (1998). As the Supreme Court noted, the FCC did not issue its first universal service order until May 8, 1997, after the statutory deadline for the Commission to establish the KUSF. *Id.* at 383-84. The FCC has since determined that states have the responsibility to identify implicit universal service subsidies by carefully examining the revenues of telecommunications carriers in conjunction with cost studies. *Id.* Consequently, the Kansas Supreme Court interpreted the Kansas Act to be consistent with the FCC rules, allowing for appropriate adjustments to the KUSF by the Commission on the basis of cost studies, audits, or earnings reviews. *Id.* at 384. Consistent with K.S.A. 1998 Supp. 66-2008(d) and the Kansas Supreme Court's interpretation of the Kansas Act, we initiated this proceeding to consider modifications to the KUSF to establish a cost-based fund. Order 10, issued September 30, 1999, ¶ 1.

18. Our decisions in this proceeding are guided by these federal and state law principles.

III. SELECTION OF INPUT VARIABLES

19. The Commission decided in Order 10 to use the FCC's forward-looking

cost model as a basis for determining support for SWBT and Sprint service areas. Order 10, ¶ 55. The Commission determined that parties could present modifications to the FCC input values “to the extent the input values should be modified to reflect Kansas-specific conditions or costs.” *Id.* ¶ 60.

20. In order to address input issues prior to the date for filing testimony, and to better understand the respective positions of the parties regarding input variables, the parties participated in an Inputs Workshop on October 26-27, 1999. The workshop was useful in several ways.

First, it provided the parties with an opportunity to identify key inputs which might be modified to adapt the FCC model for KUSF purposes. Because of the short time frame for preparation of evidence for this hearing, this discussion helped prevent parties from being “surprised” by the filings of others, and it helped ensure that the parties had an adequate opportunity to analyze the disputed inputs. Second, it provided an opportunity for the parties to work towards a consensus, to the maximum extent possible, concerning appropriate input values for modeling universal service costs in SWBT’s and Sprint’s Kansas service territories.

In this regard, the Commission’s tentative rejection of “company specific” input values, and its tentative reliance upon the FCC’s default values helped keep the parties focused. . . . [A]ll the parties focused on a relative handful of inputs they felt were particularly important, or which merited special attention for some reason.

Direct Testimony of Johnson, at 10.

21. The workshop results were described in a memorandum to the Commission dated November 16, 1999. Memorandum to Commissioners from Gerald Lammers, November 16, 1999 [hereinafter Staff Memorandum]. The memorandum noted that there are approximately 1400 inputs to the FCC model, and the parties were interested in focusing on inputs that had significant impact and/or were logical adjustments for Kansas. The memorandum reflected substantial agreement among the parties on the definition of a “baseline” set of inputs with which to run the FCC model. This provided the benefit of a common baseline scenario against which all parties could compare further suggested

changes to FCC default values. The FCC default values that were changed to create the baseline scenario include use of Kansas-specific income tax and other tax factors (based on SWBT and Sprint composite calculations); use of an outside plant mix that is representative of territories served in Kansas; and use of the same default costs for fiber feeder cable as for transport fiber. Specifications for running the model included using FCC default values except for the items listed above, road surrogate data, and “old” access line counts since more current data was not available in time to run the model for the hearing. Attachment 1 to the Staff Memorandum delineated the parties’ agreement for the baseline run definition, the relatively few input issues on which parties would provide additional testimony and positions, and other related issues to be decided by the Commission.

22. The Commission appreciates the work of the parties in the Inputs Workshop to understand their respective positions, narrow their differences, and reach agreement where possible. The true benefit of that work was shown in the clarity of the testimony filed on relatively few issues, and the focused efficiency in the hearing where those few issues were further explored via cross-examination. We understand the timelines were extremely short, but as the parties know those timelines were necessitated for several reasons, including the requirement to determine the Year 2000 KUSF assessment that will take effect March 1, 2000.

23. As a result of the Inputs Workshop, parties have proposed modifications to a limited number of the FCC input values. Support for these modifications is based on different types of evidence, ranging from carriers’ embedded data, to studies of specific wire centers, to analyses of Kansas-specific geographic and demographic characteristics and other information.

24. As an overall policy, the Commission finds that the KUSF cost model

should incorporate the default model inputs for the FCC's Cost Proxy Model to the extent appropriate for Kansas. Input variations will be allowed primarily to reflect Kansas-specific, rather than company-specific costs. The Commission reaches this conclusion for several reasons.

25. First, the FCC spent several years developing and reviewing data to serve as the basis for its cost inputs. The model and its input variables were designed to allow for specific differences in terrain that affect costs. Direct Testimony of Donovan, at 8-9; Rebuttal Testimony of Donovan, at 18. Many different parties including diverse carriers, economists, technical experts and customers presented information and analysis related to the inputs. The FCC's decisions on inputs were based on a detailed and comprehensive record. Rather than replicate the FCC's work to determine each and every input variable, and based upon the parties' general acceptance of the FCC inputs, we will accept the FCC default inputs as a starting point in this proceeding.

26. Second, permitting variables for Kansas-specific, rather than company-specific costs, is more consistent with a forward-looking cost model approach. Forward-looking economic costs are intended to reflect the costs of an efficient competitor using the best available technology and network. Order 10, ¶ 45. Basing support on forward-looking costs sends the correct signals for investment, competitive entry and innovation. *Id.* ¶ 43. Input variations that take into account Kansas-specific costs will reflect differences that companies entering or operating in Kansas will experience. Company-specific inputs, on the other hand, reflect only that entity's operating experience. Company-specific inputs may not necessarily be consistent with the types of forward looking costs that the model is intended to develop. By tying cost variations to characteristics specific to Kansas, parties can demonstrate that generic differences are valid.

27. The Commission finds that the changes to the FCC default inputs adopted by the parties for use in the baseline model run are acceptable because they reflect Kansas-specific differences. For example, the two tax adjustments, for state income tax and state property tax, reflect modifications for actual Kansas (rather than nationwide average) tax rates. Direct Testimony of Holmes, at 3; Staff Memorandum, Attachment 1. The plant mix variable is more representative of the plant mix Kansas companies generally experience. *Id.* at 1 & Attachment 2. For example, a relatively high proportion of buried plant would be most cost-effective in Kansas due to maintenance and climate considerations (*i.e.*, storm-proofing). Direct Testimony of Johnson, at 56-57. The transport costs were modified to be consistent with fiber costs assumed for feeder cable. *Id.* at 57-58; Staff Memorandum, at 2. Line counts will be updated in the end to reflect the actual number of lines served by SWBT and Sprint.¹ *Id.* In all other cases, the parties' baseline run used the FCC default input values. *Id.*

28. Parties disagreed on a limited number of other input variations. *Id.* Staff proposed four other changes. Staff recommended that the Commission (1) reduce the distribution routing variable from 1.0 to .85, (2) use 10% for the cost of capital rather than the FCC default value of 11.25%, (3) reduce feeder structure and placement costs by 40%, and (4) recognize that in higher density zones, sharing of feeder and distribution cable will occur more frequently. Direct Testimony of Johnson, at 59-62.

A. Distribution Routing Variable

29. Dr. Johnson testified extensively on behalf of Commission Staff on this issue, and provided the following analysis. One of the most important and difficult

¹³ See *infra* at ¶¶ 166-67 for further discussion concerning line counts.

problems associated with FCC model development is how best to identify where customers are located for modeling purposes, and how to calculate the amount of cable and equipment needed to connect them to the wire center. Direct Testimony of Johnson, at 12. The amount of cable needed to connect customers to the wire center is particularly important in high cost areas, because relatively large amounts of cable are required to cover long distances outside of town, which tends to generate higher costs. *Id.* at 13. The FCC model relies on simplifying assumptions, particularly regarding distribution cable quantities. *Id.* The two most important drivers of per-line network costs, average loop length and customer density per route mile, are both functions of customer location. *Id.* at 15.

30. To estimate the location of customers, the FCC adopted a road surrogate algorithm for its model, until a source of geocoded customer location data is selected by the FCC. *Id.* at 16.

Geocoding is typically accomplished by having a computer look at a customer's street address and determining the corresponding mapping coordinates, latitude and longitude, for the specified location. . . . The address information is matched to existing digital mapping information (derived from the TIGER files) to determine the mapping coordinates.

Id. at 40.

31. Use of actual customer location (geocoded) data inputs in the model would minimize the amount of cable needed, and hence costs. Tr. at 965-969. The major drawback of using road surrogate data for customer location is that it assumes customers are spaced evenly along roads, even though they are not. Direct Testimony of Johnson, at 29. Dr. Johnson testified that the road surrogate data has a "systematic tendency to exaggerate the dispersion of customers in rural areas which causes the model to spin down more cable than would really be needed if you were actually connecting to the true

locations” of customers. Tr. at 966. Unfortunately, geocoded data is not generally available for rural areas, where it is most needed for purposes of costing within the FCC model. Direct Testimony of Johnson, at 30, 36.

32. Staff performed a detailed analysis of a few wire centers to learn how the model works with road surrogate data, and to allow for judgments on refining inputs. *Id.* at 37. Staff’s analysis demonstrated that cable can be routed along Kansas rights of way more efficiently than the FCC model estimates. *Id.* at 28. Staff concluded that the distribution routing input should be reduced below its default value of 1.0 to compensate for the road surrogate algorithm’s systematic tendency to overestimate cable. *Id.* at 47; Tr. at 966, 970-971. Specifically, Staff recommended a value of .85 for the routing variable. Direct Testimony of Johnson, at 52.

33. Dr. Johnson performed additional analyses in support of reducing the distribution routing input variable to .85. Staff compared embedded sheath feet data of Sprint and SWBT to route feet generated by the FCC model, to judge how well the FCC model reflects the geographic conditions of each wire center. *Id.* at 18 & Schedules 1-4, 7-8 and 11. While the existing network and the forward-looking network would not be identical, they both need to connect the same customers at the same locations. *Id.* at 18. The FCC model tends to generate more route feet than the corresponding embedded sheath feet quantities.

34. Sprint’s position is that the appropriate setting for the distribution routing input variable is the default value of 1.0. Sprint suggests that the FCC’s reason for setting the default value at 1.0 is that the model uses rectilinear routing as it lays out its plant, not airline (or beeline) routing. The FCC has concluded that “rectilinear distance more accurately reflects the routing of telephone plant along roads and other rights of way.” *In the Matter of Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, and

In the Matter of Forward-Looking Mechanism for High Cost Support for Non-Rural LECs, CC Docket No. 97-160, Tenth Report and Order, ¶ 81 (FCC 99-304) (released Nov. 2, 1999) [hereinafter Tenth Report and Order (FCC 99-304)] (citing Further Notice of Proposed Rulemaking, CC Docket Nos. 96-45, 97-160 (FCC 99-120) (released May 28, 1999), at ¶ 62). On November 2, 1999, the FCC reaffirmed its tentative conclusion that the road factor in the model should be set equal to one. *Id.* ¶¶ 81-82. *See* Direct Testimony of Staihr, at 13. Given the assumptions built into the platform and the data used, Dr. Staihr claimed there is no justification for a road factor less than 1.0. *Id.* at 14.

35. On rebuttal, Sprint suggested that Staff's comparison of embedded plant to model results was based on a fundamentally flawed assumption: "that the model is doing something wrong because it does not replicate the embedded network with regard to route miles." Rebuttal Testimony of Staihr, at 9. He testified that the model is not designed to match any characteristic of the embedded network. *Id.* at 11. After analyzing data at certain exchanges, Sprint concluded that the input value should be set higher than 1.0, not lower. Rebuttal Testimony of Holmes, at 8 & Exhibit JAH-2.

36. SWBT also disagreed with Staff's proposed distribution routing variable input recommendation of .85. SWBT witness Morrissey suggested that Staff's problem is with the use of road surrogate data rather than geocoded customer locations, but Staff's own example shows there are several exchanges where geocoded-driven costs are higher than comparable road surrogate costs. Direct Testimony of Johnson, Schedule 9. SWBT concurred with Sprint that Staff relied heavily on embedded cost comparisons for justification, when the forward-looking network is substantially different in design than the embedded network. SWBT maintained that the Commission should defer to the FCC on this issue, which has concluded there should be no downward adjustment. Rebuttal Testimony of Morrissey, at 6-8.

37. AT&T supports the most accurate geocoding of customer locations feasible. Actual geocoding provides for the most optimal network design. However, in conjunction with the consensus of the parties to use road surrogate data in the baseline model run, AT&T supported Staff's position to use a road factor less than 1.0 in lieu of having accurate geocoding of customer data. AT&T agreed that this adjustment would mitigate the excessive cable distances Staff demonstrated, since the road surrogate option assumes customers are located uniformly along roads within a cluster. Rebuttal Testimony of Donovan, at 5. Based on its review of the data, AT&T's witness testified that the .85 factor "is a very conservative reduction, and an even lower factor would be very much justified." *Id.* at 7.

38. We believe Staff has presented substantial evidence to support reducing the distribution routing variable from its default level of 1.0. Staff supported its recommendation with two general arguments. First, use of road surrogate data rather than geocoded customer location data tends to systematically overestimate the amount of cable "deployed" by the model, which in turn systematically overestimates the cost of universal service. Second, a comparison of embedded cable quantities to cable quantities produced by application of the model using the road surrogate data shows that the cable quantities produced by the model are greater than the quantities in place today.

39. In one regard, we share the view of those who criticize the Staff proposal. The FCC model is not designed to replicate the existing, embedded network. If the embedded/modeled network comparison were the only basis for Staff's proposal, we would be much less inclined to accept Staff's proposed adjustment. Instead, however, we view it as additional, corroborating support of the primary Staff point: that use of road surrogate data instead of geocoded customer location data systematically overstates the amount of cable "deployed" by the model, which directly increases universal service

costs.

40. The decision in this case will directly affect the amount most Kansas consumers of telecommunications services will pay to the KUSF to support reasonably priced service in high-cost areas. Geocoded data for Kansas's high cost areas is not available now, and may not be for some time. It is reasonable to correct the model's systematic overstatement of costs by adjusting the distribution routing variable from its default value of 1.0, as recommended by Staff. While the FCC's objective was to determine which large telephone companies should receive an aggregate amount of dollars, our objective is to calculate a statewide average universal service cost, and determine which wire centers or exchanges have costs above the benchmark and of those, which should receive high cost support. Our objectives are more particularized (wire center to wire center rather than state-to-state comparison), so it is appropriate for us to give more consideration to finely calibrated adjustments.

41. Both Sprint and SWBT suggest that the FCC considered this issue, impliedly at some length, and has disposed of it. But Dr. Johnson testified that the FCC "barely mentioned this input in their orders. There has been very little discussion of it." Tr. at 970. Dr. Johnson's testimony further supports the view that the distribution routing variable was not critical to the FCC's objectives, at least at the time of its decision. The fact that the FCC's model includes a user-adjustable input value in the first place suggests that there was an intent to allow it to be used. Staff noted that one of the few references in the FCC's order to the use of this adjustable input value was "the possibility that across the country in different regions, perhaps different settings would be appropriate. . . . [For example, in] mountainous areas, a variable above one might be appropriate" Tr. at 971.

42. Kansas is not noted for its mountainous terrain, and the record is unclear

as to whether Kansas has relatively more or fewer other natural barriers such as lakes and rivers. But in general, we find that Kansas has relatively few natural barriers that would affect distribution cable routing. It was the critics' point to make, and those parties offered generalities, but no specific evidence concerning natural barriers in Kansas.

43. Sprint suggests that its calculated comparison of embedded to modeled cable quantities indicates that a value over 1.0 (perhaps 1.12) is appropriate. But in Sprint's analysis, it did not reduce embedded quantities of cable at all to reflect cable that would be retired due to the placement of fiber. The Sprint analysis fails "to subtract out all the segments of cable or route lengths that would no longer be functioning or needed in this retrofitted network." Tr. at 930-31; Rebuttal Testimony of Holmes, Schedule JAH-2. Sprint suggests that the "copper facilities would be reused for copper distribution purposes." Direct Testimony of Holmes, at 8. However, AT&T refuted Sprint's assertion, arguing that it lacked foundation. Rebuttal Testimony of Donovan, at 7.

44. We accept Staff's recommended distribution routing variable of .85. This is an area where precision is not possible. It is precisely because geocoded data is not available on a broad scale for Kansas' high cost areas that such an adjustment must be considered in the first place. Staff's and AT&T's analyses and recommendations are based on exchanges for which geocoded data is available. Both Staff and AT&T contend that the .85 input factor is a conservative recommendation, and an even lower factor could be justified. Rather than pursue an even lower input (such as .69 suggested by AT&T), we find that Staff's recommendation strikes a fair balance, and we adopt it.

B. Default Sharing Factor for Buried Cable

45. The FCC model includes default variable percentages that reflect the extent to which costs of trenching and placing cable may be shared with other entities,

such as cable television companies and electric utilities. Depending on the type of cable placement (underground, buried, or aerial) the opportunities and extent of sharing differ. Sharing opportunities also differ with variances in subscriber densities. These distinctions are reflected in the FCC's default inputs. *See* Direct Testimony of Johnson, at 60 & Table 5.

46. Staff suggests that the Commission modify the model's default sharing factor for buried cable. Specifically, Staff recommends a less optimistic percentage reflecting sharing opportunities for buried cable in the higher-density areas.¹ Direct Testimony of Johnson, at 59-60 & Table 5. Carriers are less likely to share the cost of buried cable than underground cable. Tr. at 911. It is difficult to share the cost of buried cable placement once completed, because buried cable is laid directly in a trench and covered with dirt. Thus, carriers must plan in advance for sharing the costs of placing buried cable. In contrast, underground cable is placed in underground duct or pipe with manholes at both ends to allow easy access. The method of installing underground cable facilitates future placement or replacement of cable, and therefore offers feasible opportunities for sharing cable at a later date. Tr. at 1146-47. Therefore, it is reasonable to expect more sharing of underground cable than buried cable.

47. In fact, some expect substantially more sharing of underground facilities than buried. Tr. at 1149. AT&T testified that sharing percentages for underground cable should be even more aggressive. Tr. at 1154. However, AT&T accepted Staff's proposal as a compromise.

48. Sprint maintains that sharing opportunities are fewer than indicated by the FCC's default values. Sprint accepts Staff's proposal for adjusting the values for buried

¹⁴Increasing the input percentage for structure sharing reflects the extent to which the cost is attributable to telecommunications services. Therefore, increasing the input percentage from the default value assumes less sharing opportunity than does the FCC model.

cable sharing, but proposes that those percentages also be adopted for underground cable. Tr. at 1093. Sprint claims that very little buried and underground cable structure sharing occurs in Kansas. Direct Testimony of Holmes, at 15. Sprint asserts that virtually no sharing opportunities exist in rural, low-density areas. According to Sprint, the FCC's default aerial structure sharing percentage is accurate. However, for the middle-density groups in the buried cable category (100, 200, 650 and 850), Sprint proposes that the sharing opportunity assumption be reduced 5-10% more than Staff proposes. Sprint concurs with Staff's low and high-density recommendations. In addition, for the higher density ranges pertaining to underground cable, Sprint recommends a 10-30% adjustment to reflect reduced sharing opportunity. In the end, Sprint would assume less sharing for both buried and underground cable than assumed by the FCC default values, resulting in equivalent percentage reductions for both plant categories.

49. We find Staff and AT&T's evidence persuasive that carriers are substantially more likely to share underground structure placement cost than buried cable placement costs. Accordingly, the sharing percentages applicable to these two categories of outside plant should differ. We also concur with AT&T that a forward-looking model should envision increased sharing of structures, rather than the monopoly approach to structures that is reflected in embedded networks and practices. Regulatory commissions should encourage telecommunications carriers to coordinate more than they do now. Without such coordination, as the number of competitors grow, streets and properties will be excavated multiple times, once for each company. Rebuttal Testimony of Donovan, at 14.

50. We conclude that insufficient evidence has been presented to substantially modify the sharing percentages adopted by the FCC as default values. We are not inclined to give Sprint's arguments much weight, particularly since they appear to rely

more on past engineering practices than a forward-looking network environment. Staff's proposal, however, is supported by convincing analysis that sharing of underground cable structure is more likely than sharing of buried cable. We find that Staff's recommendation is reasonable, and we accept it for purposes of determining KUSF costs in Kansas.

C. Sharing of Structure Costs for Feeder and Distribution

51. Staff witness Dr. Johnson testified that the FCC's Cost Proxy Model ignores the possibility that feeder and distribution cable may be placed on the same poles, or in the same trench. Feeder and distribution cable are generally placed in parallel along certain routes. However, the FCC's model algorithms do not recognize the savings that can be achieved by the parallel placement of feeder and distribution cable. While the FCC's model recognizes the potential for cost savings in the placement of interoffice transport cable with feeder cable, it disregards the corresponding potential for savings in the placement of distribution and feeder cable. Direct Testimony of Johnson, at 60-61.

52. In support of Dr. Johnson's conclusion that the FCC's model is flawed in this regard, Staff examined the placement of feeder and distribution cable for 14 selected wire centers. In every case, at least 40 percent of the feeder routes also included distribution cable. In some wire centers, the percentage was much higher. *Id.* at 61. 53. AT&T the developers did not consider it. Rebuttal Testimony of Donovan, at 20-21. After thoroughly reviewing Dr. Johnson's position on this issue, Mr. Donovan agreed with his conclusion that the significant overlap between distribution and feeder cable in Kansas should be acknowledged. *Id.* at 21. He testified that Staff's recommended 40 percent reduction is conservative and should be adopted by the Commission for Kansas. *Id.* at 21-22.

54. The Commission finds Staff's recommendation reasonable and adopts it for developing the cost of universal service in Kansas. Accordingly, the FCC's default value for feeder structure and placement costs shall be reduced by 40 percent.

D. Cost of Capital

55. The FCC model includes an 11.25% rate of return as a default variable, a return that the FCC has used for some time. Tenth Report and Order, at ¶¶ 432-35 (FCC 99-304). Staff, the only party to present evidence on a reasonable rate of return, proposed that the return be reduced to reflect a cost of capital more appropriate for current market conditions. Staff witness Gatewood's cost of capital analysis concluded that the default rate of return set by the FCC is too high relative to current capital markets. Direct Testimony of Gatewood, at 1.

56. Staff also provided cost of capital analysis in the SWBT unbundled network elements proceeding. *Id.* at 5 n.2; *see* Docket No. 97-SCCC-149-GIT, Direct Testimony of Gatewood, filed June 18, 1998. In that case, the Commission adopted a cost of capital of 10.0%. Docket No. 97-SCCC-149-GIT, Order on Reconsideration issued September 17, 1999, ¶ 50. Mr. Gatewood testified, "The cost of equity, . . . and the average capital structure for a telecommunications company are very much the same as when the Commission set the inputs for the unbundled network elements cost model last year in docket 97-SCCC-149-GIT." Direct Testimony of Gatewood, at 2. Further, he testified, "The cost of debt has not changed much during this time period." Mr. Gatewood provided comparative data supporting this conclusion in his testimony. *Id.*

57. Staff also suggested it is appropriate for the Commission to use similar cost of capital inputs for unbundled network element pricing and KUSF support. If the Commission adopts the FCC rate of return (11.25%) for the KUSF model, then a

competitive local exchange carrier wanting to provide service in a high cost area could purchase unbundled network elements from the incumbent local exchange carrier at a cost based on a 10.0% return, and collect KUSF support based on an 11.25% rate of return on essentially the same assets. *Id.* at 3. Consequently, the competitor would benefit to the extent of the difference between the two rates of return. As Mr. Gatewood observed, “Obviously there is a link between the cost of UNEs and KUSF support making it advantageous for the Commission to use similar inputs in the two models whenever possible so as to reduce the opportunity for any party to game the two models.” *Id.*

58. The Commission is not persuaded that the cost of capital assumed in costing universal service must coincide with the 10.0% cost of capital determined in Docket No. 97-SCCC-149-GIT for pricing unbundled network elements. Competitive local exchange carriers providing service exclusively through leasing unbundled network elements may only draw federal universal service support to the extent of the price paid for those elements. Ninth Report and Order (FCC 99-306), at ¶ 91. Any remaining federal support for access lines served by the competitor is retained by the incumbent whose facilities are leased by the competitor. *Id.* While we have not adopted the same rule for Kansas,² we do not believe it is necessary to establish the same cost of capital for calculating the cost of universal service as that established for pricing unbundled network elements. The investment risk for providing service through the lease of unbundled network elements is not necessarily the same as the investment risk to a facilities-based competitor providing universal service in a high-cost area. If investment risk differs, then the cost of capital would also be expected to differ.

²⁵ We will consider whether to adopt a similar rule for Kansas in other proceedings addressing unbundled network elements. *See infra* at ¶¶ 147, 149.

59. We accept the cost of capital resulting from the specific components of Staff's analysis, which is 10.15%.³ *Id.* at 1. No other party provided evidence regarding the appropriate cost of capital in either direct or rebuttal testimony. The Commission adopts the Staff recommendation to depart from the FCC's default value of 11.25% to more accurately reflect the current capital market for investments in telecommunications services. Specifically, we adopt 10.15% as the cost of capital for purposes of calculating high-cost KUSF support.

E. Common Support Services Expenses

60. CURB proposed that the Commission reduce the common support services expense⁴ by \$1.00 per line. In support, CURB presented a variety of statements and evidence concerning the common costs per line of SWBT and Sprint. According to CURB, the common cost per line per year is \$4.94 for SWBT, based on 1998 ARMIS data and access lines. Direct Testimony of Ostrander, at 18-22. Cost savings and efficiencies from company mergers, both pending and approved, should substantially reduce common costs. A lower common cost figure (\$6.42 per line) than the current FCC default value (\$7.32 per line) was supported by the sponsors of the BCPM model in

³⁶ While Mr. Gatewood's prefiled testimony includes a cost of capital analysis yielding a result of 10.14%, the actual rates of return he assumed for equity and debt, and the specific weights he assumed for each in the capital structure, yield 10.15% as the cost of capital. In the schedules prepared by technical staff at the Commission's request during our deliberations, 10.15% was used for the cost of capital, consistent with the detailed elements of Mr. Gatewood's analysis.

⁴⁷ As defined by the FCC, common support services expenses include corporate operations expenses, customer service expenses, and plant non-specific expenses. Corporate operations expenses are costs such as general administrative services, executive planning, human resources, legal, and accounting expenses for total company operations. Customer services expenses include marketing, billing, operator services, directory listing, and directory assistance costs. Plant non-specific expenses are common network operations and maintenance expenses, such as engineering, network operations, power, and testing expenses considered to be general or administrative overhead for plant operations. Tenth Report and Order (FCC 99-304), at ¶ 377 & nn. 835-46 (listing ARMIS expense accounts and subaccounts for common support expenses and their subcategories).

their FCC filing. BCPM is a precursor model to the FCC model, and its sponsors include Sprint. The FCC's default value is an average across all carriers in all regions of the United States, including east and west coasts, where the cost of living is higher. Therefore, CURB believes the reduction in this input variable should be at least \$1.00. CURB recommends an input value of \$6.32 per line, and observes that while its recommendation was not designed with this in mind, that value is approximately midway between the FCC's original recommended value of \$5.11 and its final default value of \$7.32. Direct Testimony of Ostrander, at 18-22.

61. CURB presented no specific evidence to support the recommended reduction of \$1.00 in the default value rather than some other figure. On the other hand, none of the other parties refuted CURB's evidence, particularly the calculations based on ARMIS data. Consequently, this is a matter where the Commission must exercise its judgment.

62. Evidence in the record shows that SWBT's common costs in 1998 were \$4.94 per line. *Id.* at 21. Also, as CURB testified, Sprint proposed a lower common cost figure to the FCC, specifically \$ 6.42 per line. *Id.* at 19, 22. In light of evidence that lower common costs are achievable in Kansas for non-rural companies, we are reluctant to adopt the FCC's default value for these companies. Therefore, based on the evidence in the record, the Commission finds that the common cost input factor of \$7.32 overstates forward-looking common costs in Kansas. Recognizing that precision in this area is not possible at this time, the Commission adopts \$6.32 per line as the common support expense input for Kansas, as recommended by CURB.

F. Sprint's Proposed Inputs

63. Sprint proposed a number of other company-specific adjustments to the default inputs. In support of its proposed modifications to the FCC's model inputs, Sprint

asserted that for federal purposes it is classified as a rural company. Direct Testimony of Harper, at 3-4 (citing 47 U.S.C. § 153(37)(A)). Therefore, Sprint contends that the model recently adopted by the FCC does not apply to Sprint for purposes of distributing federal universal service support. *Id.* at 4-5. On the other hand, under the Kansas Act, Sprint is defined as a non-rural company because it serves more than 20,000 customers in Kansas. *Id.* at 4; *see* K.S.A. 1998 Supp. 66-1,187(l).

64. Sprint does not object to having its KUSF support determined on the basis of the FCC's model. Direct Testimony of Harper, at 5. In fact, Sprint agreed to most of the default inputs in the model and stipulated to the baseline inputs in this proceeding. *Id.* at 5-6. However, Sprint also proposed certain input modifications specific to its own territory and its actual experience in Kansas. *Id.* at 6-7. Specifically, Sprint seeks modification of (1) numerous inputs regarding transport costs, Direct Testimony of Cox, at 7 & Exhibit B; (2) structure placement costs, specifically aerial, buried and underground structure; Direct Testimony of Holmes, at 11-14 & Exhibit JAH-3, at 1; and (3) structure sharing, which is the amount of structure cost assumed to be shared between local exchange carriers and other companies such as power and cable television providers. *Id.* at 14-17 & Exhibit JAH-3, at 2.

1. Transport Costs.

65. Sprint challenged several of the FCC's transport default inputs.¹ Sprint's witness testified that the FCC's default inputs for terminal and regenerator costs "are extremely low when compared to Sprint's 1999 vendor prices." According to Sprint, its installed costs are "two to five times higher than the FCC default values." Direct Testimony of Cox, at 4.

66. Sprint supports changing the average trunk utilization default assumption

¹ ⁸ The terms transport and interoffice transmission are used interchangeably.

from .3000 to .2688. This variable is used to derive the average minutes of use per DS1 circuit. Sprint notes that the default assumption results in more minutes per circuit (10,400) than the number assumed in another FCC docket (9000). Sprint claims that with its rural exchanges and smaller trunk groups for interoffice traffic, a lower average trunk utilization factor is appropriate. Direct Testimony of Cox, at 4-5. Sprint supports changing the FCC default transport input for conduit material. Sprint indicates that based on recent construction activity, an input of \$1.39 per foot is appropriate, compared to the FCC default value of \$0.60. *Id.* at 5.

67. On the other hand, AT&T fully supports the use of FCC values for interoffice transmission equipment. Sprint did not provide actual vendor price quotes with its testimony, but filed a proprietary exhibit in which it set forth its position regarding various transport costs. Direct Testimony of Cox, Exhibit A (proprietary). On rebuttal, Mr. Donovan offered a detailed critique of Sprint's opinions as to transport costs. Rebuttal Testimony of Donovan, at 8 & Exhibit JCD-2 (proprietary).

68. Specifically, in Mr. Donovan's opinion, the supply expenses included in Sprint's transport costs far exceed reasonable amounts. Rebuttal Testimony of Donovan, at 9. Mr. Donovan submitted what he considered reasonable shipping expense estimates, based on the size and weight of the equipment at issue and assuming Federal Express 2-day delivery. *Id.* He testified that the labor costs submitted by Sprint for installing the equipment also far exceed reasonable amounts. *Id.* Mr. Donovan testified that the cost of fiber optic multiplexing equipment is declining, with rapid advances in capacity and speed. In his opinion, the FCC default values for OC-48, OC-12, and OC-3 multiplexer equipment are reasonable. *Id.* at 10. Mr. Donovan explained the function, performance characteristics, and limits of fiber optic regenerators, concluding, "[A] fiber optic regenerator is rarely required, but when needed it is a relatively simple device for which

the FCC default value is reasonable.” *Id.* at 11. In Mr. Donovan’s opinion, no Kansas-specific reason exists for modifying the FCC’s default values for transport costs.

There is nothing unique about Kansas that would affect these inputs. Materials are purchased [by Sprint] on a national contract basis so that large scale purchasing economies may be realized. Sprint owns *Sprint North Supply*, a major logistical supply company that performs large scale purchasing for Sprint subsidiaries, and is also a major supplier to many non-Sprint firms engaged in telecommunications. . . . This equipment is not unique to Sprint, nor to Kansas.

Id. at 12. Further, Mr. Donovan pointed out that Sprint has provided no data to support its request to alter the FCC default value for average trunk utilization. *Id.*

69. With respect to interoffice conduit material, Mr. Donovan questioned whether any change is justified for the default value, except that the input for conduit in the interoffice portion of the FCC model should agree with the input for underground conduit in the feeder portion of the model, as the parties have agreed in their baseline inputs for fiber optic cable. *Id.* at 13; *see* Staff Memorandum, at 1-2. Accordingly, the FCC default value of \$.60 per foot for interoffice conduit should be changed to \$.72 per foot to agree with feeder conduit, but should not be changed to \$1.39 per foot as advocated by Sprint. Rebuttal Testimony of Donovan, at 13.

70. We decline to adopt Sprint’s proposed inputs to replace the default values for interoffice transport. Consistent with our general policy decision, the cost model should incorporate the FCC’s default model inputs, unless a variation is justified by the evidence in order to reflect Kansas-specific conditions.

71. We find that Sprint has not provided sufficient credible evidence to justify a departure from the FCC default values for transport costs, especially in light of the rebuttal testimony of other parties. It is clear from the record before us, as well as the FCC orders released on November 2, 1999, that Sprint actively participated in the FCC’s proceeding to develop the cost proxy model and establish the default values. Sprint does

not argue that the FCC failed to consider its position regarding the appropriate default values. Instead, Sprint contends that we should give greater weight to its concerns as to specific costs for purposes of high-cost KUSF support than did the FCC in modifying the federal universal service support mechanism. As noted by AT&T, Sprint did not provide any vendor price quotes as part of its testimony on costs. Nor did Sprint successfully challenge AT&T's evidence suggesting that Sprint's proposed values for supply expenses far exceed reasonable amounts, or that its proposed installation costs are excessive. Finally, Sprint provided no data to support its request to alter the default value for average trunk utilization. Rather, Sprint simply advanced a generalized claim that a lower average trunk utilization factor is appropriate for rural exchanges and smaller trunk groups.

72. We will, however, modify the default value for underground conduit in the transport module, but not for the reason Sprint proposes. In order to be consistent with the conduit value assumed in the feeder module, the default value for transport conduit should be changed from \$.60 per foot to \$.72 per foot, as suggested by AT&T. As we have previously noted in this order, the parties agreed in establishing their baseline model inputs to modify the transport cable values to be consistent with the value for feeder cable. *See* Staff Memorandum, at 2. The Commission finds that the conduit and cable values should both be internally consistent within the model.

2. Structure Placement Costs.

73. With respect to structure placement costs, Sprint made several arguments in favor of increasing some of the default values. First, Sprint's witness Holmes testified that "fiber facilities are usually plowed or placed at lower cable depths than . . . small

copper distribution cables. As witnessed with several of the national telephone outages, it is important that fiber backbones be properly protected.” Direct Testimony of Holmes, at 11. However, AT&T’s witness Mr. Donovan testified that the default inputs for the FCC’s model account for this consideration. Specifically, the FCC defaults assume that fiber cable would be buried at a depth of 36 inches, while copper distribution cables would be buried at a depth of 24 inches. Rebuttal Testimony of Donovan, at 17.

74. Second, Sprint’s witness testified that the FCC model does not recognize any soft or hard rock terrain in Kansas, such as the rocky, hilly area known as the Flint Hills, while Sprint’s actual numbers reflect the impact of those conditions. Direct Testimony of Holmes, at 11-12. Mr. Donovan also disputed this argument, testifying that the FCC model appropriately reflects varying soil conditions in each wire center, and that it classifies 48 Kansas Census Block Groups as having soft rock conditions and 32 as having hard rock conditions. Rebuttal Testimony of Donovan, at 42.

75. Third, Sprint proposed a modification for aerial structure costs based on Sprint’s actual costs for poles, anchors, and guys, and the cost of installation in Kansas rather than the linear regression used for the FCC default values. Sprint also increased the default values reflecting the frequency of use of anchors and guys in urban and suburban density zones. Direct Testimony of Holmes, at 13-14. Sprint submitted no detailed data in support of the amounts it claims should be used as company-specific inputs to the model for aerial structure costs. Rebuttal Testimony of Donovan, at 19. Data Sprint reported to the FCC for its consideration in developing the model showed that for at least some costs, the default values are significantly higher than Sprint-specific costs for aerial structure. *Id.* As for frequency of use of anchors and guys, Sprint’s testimony suggests that the model uses the same distance between anchors and guys for all density zones. However, the FCC model defaults in fact vary anchor and line spacing

from 1500 feet in the lowest density zones to 600 feet in the highest density zones. Rebuttal Testimony of Donovan, at 19-20 & n.20.

76. The Commission is not convinced that the FCC defaults for structure placement costs should be modified as recommended by Sprint. Mr. Donovan's testimony clearly indicated that the model defaults take into account the concerns Sprint has identified. Sprint has not persuaded us that its company-specific cost figures for structure placement should be used in lieu of the FCC default values.

3. Structure Sharing Percentage.

77. Sprint also recommends reducing the structure sharing percentage for both underground and buried structure. It is Sprint's position that sharing of both buried and underground structure is less likely than indicated by the model's default values and Staff's recommendations. "[V]ery little opportunity for structure sharing actually exists in reality except for aerial cable structure (poles). . . . Virtually no sharing opportunity exists in rural, low-density areas." Direct Testimony of Holmes, at 15-16. Sprint proposes that the same modified sharing factor should be applied to both buried and underground structure. *Id.* at 15-17 & Exhibit JAH-3, at 2.

78. Regarding Sprint's arguments in favor of a modified structure sharing factor applicable to the company, we have addressed this argument in the context of Staff's proposal to modify the sharing factors used within the model.² We concurred with Staff and AT&T that a forward-looking model should envision increased sharing of structures, rather than the monopoly approach to structures that is reflected in embedded networks and practices.

79. We have concluded that except for modifying the structure sharing

²⁹ See *supra* at ¶¶ 48-50.

percentages to recognize supported differences for buried versus underground cable, insufficient evidence was presented to substantially modify the sharing percentages adopted by the FCC as default values.

4. Summary.

80. We decline to modify the model's inputs based on the company-specific characteristics of Sprint, as opposed to statewide characteristics of Kansas that differ from nationwide factors. Sprint's evidence has not persuaded us that the FCC's default values, as modified by this order, fail to adequately account for adjustments proposed by Sprint. The purpose of a forward-looking cost model is to predict what a competitive carrier, using the most efficient means and the most cost-effective technology, would invest to provide universal service in a specific location. Order 10, ¶ 45. To the extent that Sprint's service areas are more rural and less dense in character than SWBT's service areas, the many density-sensitive inputs in the FCC Cost Proxy Model take such factors into account in calculating the cost of universal service. If the rural wire centers are relatively expensive to serve because of their distinguishing characteristics, the FCC model will calculate a universal service cost for those areas that is relatively high compared to the cost of serving an urban location. The fact that Sprint serves a particular area rather than SWBT or another local exchange carrier should have nothing to do with the forward-looking cost of providing universal service to that location.

81. With respect to Sprint's argument that it is smaller than SWBT in Kansas in terms of the number of customers served, the Commission does not disagree. However, the model is not designed to develop costs for specific carriers. Rather, it models the most efficient way of serving a particular area with certain geographic conditions. The Commission notes that although Sprint serves relatively few customers in Kansas compared to SWBT, Sprint is nevertheless a very large company that operates

nationwide, both as a local and a long distance provider. As such, Sprint has essentially the same opportunities as SWBT to realize economies of scale in purchasing. *See* Rebuttal Testimony of Donovan, at 12.

82. The Commission acknowledges that Sprint's service areas are more rural in nature than the territory served by SWBT. However, the FCC's model is designed to account for these differences. Differences between the characteristics of local exchange carriers' respective service areas are not a sufficient basis for changing the inputs in the FCC's Cost Proxy Model as identified by Sprint. Nor has Sprint provided a persuasive rationale for using its recommended input modifications to develop a cost model exclusively for Sprint's current service areas. While Sprint's prefiled testimony suggested that its recommended input modifications should be applicable to other carriers as well, the testimony presented at the hearing as well as Sprint's post-hearing brief makes clear its position that Sprint's proposed input modifications would be made exclusively for calculating the cost of providing universal service in wire centers presently served by Sprint. In summary, we find that Sprint has not presented sufficient evidence to persuade the Commission that its proposed modifications to the FCC's default input values are warranted for purposes of calculating cost-based KUSF support.

IV. OTHER MODEL ISSUES

A. Transport Cost Support

83. In his direct testimony, Dr. Johnson questioned whether the KUSF cost model should include a lower level of transport costs than the FCC's model generated. Direct Testimony of Johnson, at 86. Dr. Johnson testified that these transport costs include both the costs of transporting local calls between wire centers in the larger cities, as well as the costs associated with transporting toll calls between wire centers

(intraLATA toll calls, and intrastate and interstate interLATA toll calls). *Id.* Dr. Johnson observed that the model generates far more transport costs than should be expected for small, rural, single switch exchanges where local transport should be minimal. *Id.* Dr. Johnson surmised that the model's high level of transport cost was associated primarily with the long haul function (e.g., connecting the wire center to the toll tandem) rather than local transport. *Id.*

84. Dr. Johnson questioned whether the Commission should support transport costs at a lower level than loop costs, or whether it should adopt a higher benchmark for transport costs. *Id.* at 88. Depending on a carrier's mix of local and toll traffic, it may recover well in excess of 25% of transport costs in interstate access charges. *Id.* Setting a higher benchmark would diminish the potential for double recovery. Also, Dr. Johnson observed, as competition increases, it may become more important to ensure that only carriers that provide transport facilities receive transport-related KUSF support. *Id.* at 88-89. In the future, carriers that provide loop facilities may not necessarily provide transport facilities. *Id.* at 88. Dr. Johnson noted that the Commission need not make this decision immediately, since the new KUSF will provide support to Sprint and SWBT, which both own and operate transport facilities. *Id.* at 89.

85. Both Sprint and SWBT questioned Dr. Johnson's analysis. SWBT maintained that it was not unreasonable to expect the KUSF to support areas that experience substantial transport costs to meet universal service requirements. Rebuttal Testimony of Morrissey at 14. SWBT argued that remote area customers must have access to toll services at affordable rate levels. *Id.* SWBT claimed that the model's transport costs reflect the extremely high cost to serve rural Kansas areas. *Id.*

86. Sprint testified that the FCC model only includes the local portion of transport facilities. Rebuttal Testimony of Cox, at 5. Also, Sprint pointed out that the

Kansas Legislature has defined “universal service” to include not only local calling but also access to long distance services. *Id.* at 6. Consequently, it is appropriate for the KUSF to cover transport costs related to toll access. Sprint challenged Dr. Johnson’s assertion that if transport costs seem higher than expected, they should be excluded or treated differently. Sprint argued that the purpose of the KUSF is to support extraordinarily high costs, and that rural exchanges with substantially fewer customers will legitimately experience higher transport costs on a per-line basis. *Id.* at 7.

87. The Commission finds that there is insufficient evidence in the record to support adjusting the transport costs generated by the model. On the witness stand, Dr. Johnson further addressed his transport suggestions, clarifying that he was not making a specific recommendation to adjust costs or establish a separate transport benchmark in this case. Tr. at 945, 1009. The Commission concurs with Dr. Johnson as to the potential competitive implications raised by the transport analysis, which he discussed further at the hearing. Tr. at 941-46, 1008-9. He testified that KUSF support would be portable to competitors in a manner that “bundles” loop costs and transport costs together.

[B]ut the reality is the transport function is separable from the loop function and it actually is separated in many cases with competitive carriers. Some competitive carriers provide only transport and no loops. Some provide loops and no transport. . . .

Testimony of Johnson, Tr. at 942.

88. Another reality, however, is that there is little or no competition in rural areas of Kansas at this time. There are no competitors providing either loops or transport. At the point in time when competition does develop in rural areas of Kansas, it may be important to unbundle support of loop cost from transport, and perhaps switching costs, based upon the same logic expressed by Dr. Johnson. The Commission will defer consideration of this issue until that time.

B. Rural Inputs

89. In Order 10, the Commission addressed issues related to the rural independent carriers, while recognizing that the focus of this proceeding is to develop a cost model for areas currently served by Sprint and SWBT. The Commission concluded that it should determine support for the two larger carriers based on the FCC's Cost Proxy Model prior to implementing forward-looking economic support for rural areas served by the independent telephone companies. Order 10, ¶ 59. The evidence demonstrates that the FCC is still reviewing and modifying its cost model for adaptation to smaller rural carriers' service areas, and has delayed modifying federal universal service support for small companies. The Commission has therefore concluded that it is reasonable to delay modifying KUSF support for rural independent companies. *Id.* When the FCC makes a decision on a model, or some other support method, for the smaller companies, the Commission will revisit the issue of rural and small company support. To assist in developing the record, the Commission asked the rural carriers in Order 10 to identify input values that might need to be modified for that second stage process. *Id.* at 60.

90. The rural carriers presented the testimony of two witnesses in the hearing, consultants Chris Barron and Stanley Brower. Mr. Barron generally described certain differences between the rural independents and Sprint and SWBT that could affect the cost model's operation, and small companies' difficulty in validating certain cost model inputs. Direct Testimony of Barron at 7. Mr. Barron testified that in comparing model inputs with costs that the rural companies had incurred, the switching costs were very different, probably because smaller carriers configure their host and remote switches differently than the larger carriers. *Id.* at 10-11. Also, he found that smaller companies'

common support expense (e.g., marketing and customer services expense) was much higher per line per month. *Id.* at 11. Overall, Mr. Barron recommended that the Commission carefully examine model inputs to ensure that they produce reasonable results for rural carriers. *Id.* at 12. Complementing Mr. Barron's testimony, Mr. Brower recommended that the Commission not take any action to change the basis of rural carrier KUSF support until the FCC concludes its process and Kansas small companies have an opportunity to assess those results. Direct Testimony of Brower, at 9.

91. The Commission appreciates SIA's efforts to explain to the Commission some of the difficulties and problems involved in applying the FCC's Cost Proxy Model to their operations and service areas. The smaller rural companies appear to experience some different costs for a variety of reasons, including differences in purchasing power, network design and scale economies. Depending on the results of the FCC's inquiry, these differences may impact the Commission's decision on how best to move these companies' KUSF support toward a cost basis.

92. The Commission affirms its conclusion reached on small rural company support in Order 10. Considering the difficulties involved in developing a cost model for smaller companies, the more important policy issue for developing competition in rural areas is the portability of KUSF support. Order 10, ¶ 60. With portable support, competitive local exchange carriers that provide service through their own facilities will receive an equivalent level of support as incumbents receive for the same line. The Commission will defer consideration of a cost model for rural independent local exchange carriers until after the FCC makes its decision on this issue. In the meantime, however, as further discussed below,¹ if a competitor enters the service area of a rural local exchange carrier and begins serving customers before that time, per line KUSF

¹⁰ See *infra* at ¶¶ 138-40.

support will be portable to the competitor.

93. We also wish to note that we are uncertain when the FCC will further refine its cost model, or develop an alternative methodology, for purposes of calculating the cost of universal service provided by rural companies. At such time as the FCC concludes its process for developing a method for costing universal service in rural areas, we will consider whether to adopt or modify the FCC's methodology for rural locations, or consider an alternative costing methodology. We expect that all carriers providing service in rural territories will participate in that proceeding. Sprint, for example, has established that much of the territory it presently serves is rural in character. Further, under the federal definitions, Sprint qualifies as a rural telephone company. For these reasons, we invite Sprint to monitor the FCC's ongoing proceedings with respect to rural companies, and participate fully in our proceedings to extend our forward-looking costing methodology to rural companies, as defined by the Kansas Act. We do not foreclose the possibility that we may modify the application of the cost model for rural territories, including those served by Sprint, in a future proceeding after we have the benefit of experience with the FCC's Cost Proxy Model, as we have modified it in this order, and the benefit of FCC determinations regarding rural universal service costing and support.

V. COMPUTATION OF SUPPORT

A. Cost Benchmark

94. Due to time constraints, the parties desired to avoid analyzing all the issues under both a cost benchmark and a revenue benchmark, as we directed in Order 10, ¶ 87. On October 29, 1999, the parties stipulated to the use of a cost benchmark for purposes of this proceeding. The Commission approved this stipulation on November 1, 1999 in Order 12.

95. In prefiled testimony, Staff explored why it was reasonable for the

Commission to use a cost benchmark in administering the KUSF. Dr. Johnson stated that using a cost benchmark creates consistency between the method used in identifying high-cost areas and the method used in developing the benchmark. Direct Testimony of Johnson, at 62. Dr. Johnson testified that adopting a cost benchmark is consistent with the FCC's method for administering the federal universal service fund. *Id.* Also, Dr. Johnson maintained, it provides the Commission with greater flexibility in balancing the interests of urban and rural Kansas customers. The Commission may easily identify the portion of the high cost burden that all Kansans will bear (through the KUSF) and the portion that carriers and customers that serve and live in high cost areas will bear. *Id.* at 63.

96. While all parties, including CURB, agreed to focus only on the cost benchmark for purposes of this proceeding, CURB provided additional information on the issue of cost benchmarks and revenue benchmarks. CURB stated that it was willing to forego addressing a revenue benchmark in this proceeding, mostly because of time constraints and because several other parties wanted to focus on a cost benchmark model approach. However, CURB expressed interest in addressing a revenue benchmark analysis on a comprehensive basis in the future. Direct Testimony of Ostrander, at 27. Therefore, while CURB agreed to defer consideration of this issue, we acknowledge CURB's unchallenged testimony that the revenue benchmark has certain benefits over the cost benchmark approach. *Id.*

97. In Order 10, the Commission addressed revenue benchmarks at some length at ¶¶ 81-91. The Commission made some initial decisions regarding the establishment and calculation of revenue benchmarks. Also, the Commission concluded "that a separate revenue benchmark for business and residence customers may be proposed for consideration. The parties should also present an aggregate (business and

residence combined) revenue benchmark.” Order 10, ¶ 89. The Commission concluded that the parties should be provided an opportunity to present evidence to support both a cost-based benchmark and a revenue benchmark in this proceeding. Order 10, ¶ 87.

98. As noted above, the Commission accepted the stipulation of the parties to limit the evidence presented in this proceeding to a cost benchmark. The Commission did so given the time frames and imperatives associated with timely completion of this hearing. However, some of the parties, including CURB, appear to have accepted the agreed narrowing of the benchmark issue due to time constraints, and the fact that other parties wished to focus on cost benchmark issues. Therefore, while we have accepted the use of a cost benchmark for purposes of this proceeding, we have not foreclosed any future analysis of revenue benchmarks and issues pertaining to their calculation. In future proceedings not so bound by the limitations of time, we may allow parties to address revenue benchmark issues in the manner suggested in Order 10.

B. Base Over Which To Average Costs

99. Dr. Johnson recommended that the Commission base the cost benchmark on statewide averaged costs, including both high and low cost areas. Direct Testimony of Johnson, at 65. Dr. Johnson acknowledged that some might argue that a statewide average should be calculated just for wire centers served by Sprint and SWBT, since cost-based support will not immediately apply to the independent local exchange carriers. *Id.* However, Staff maintained that the benchmark should be based on a true statewide average, incorporating all high and low cost areas. *Id.*

100. Sprint concurred with the statewide average approach. In prefiled direct testimony, Sprint witness Dr. Brian Staihr commented that if wire centers served by the rural companies were excluded from the average, certain SWBT or Sprint areas could be considered "high cost" when in fact they only have costs that are relatively high

compared to the rest of the SWBT or Sprint territory. Direct Testimony of Staihr, at 3. Dr. Staihr testified that including locations served by all companies will ensure that the high-cost areas are defined consistently across all companies in the state. *Id.* Since new entrants will not be restricted by companies' existing study area boundaries, Dr. Staihr concluded, the determination of what is a "high-cost area" should be made without reference to differences between companies. *Id.*

101. Based on the evidence presented in this proceeding, the Commission finds that the average universal service cost should be calculated including all wire centers in Kansas, including those presently served by rural independent companies. We believe this averaging method will allow us to better determine whether rates in urban and rural areas of Kansas are reasonably comparable for similar services, as required by the Federal Act. At such time as the FCC makes its determinations regarding rural areas, the Commission may revisit the method for averaging statewide universal service costs. However, we believe that adoption of a statewide average cost at this time, including territory served by rural incumbents, more accurately reflects the average cost of universal service in Kansas, and will tend to minimize the impact of extending the cost-based KUSF to the areas served by the rural incumbents.

102. While we are calculating the *average cost* of universal service in Kansas by including the costs estimated for locations presently served by the rural telephone companies, we emphasize that we are not, at this time, calculating the amount of *KUSF support* to be distributed to wire centers served by the rural companies on the basis of the FCC's cost proxy model. As we have previously determined in Order 10, we will defer application of the FCC's model to distribution of support to locations served by rural companies until such time as the FCC has completed its refinement of the model for rural areas served by the smaller rural companies.

C. Support for Costs above the Benchmark

103. Parties presenting evidence on the issue recommended that the Commission establish a cost benchmark that exceeds the average universal service cost by a defined percentage. The KUSF would support costs only to the extent they exceed a certain percentage of the average forward-looking cost as computed by the model. The parties differed as to the amount of the percentage, recommending a range of 115% to 150% of the average cost per wire center.

104. At the low percentage end (yielding more support), Sprint recommended that the Commission support costs over 115% of the statewide average forward-looking cost. Sprint witness Dr. Brian Staihr testified that a benchmark of 115% of statewide average cost was equivalent to the FCC's benchmark of 135% applied to the average cost of only those wire centers served by non-rural companies. Direct Testimony of Staihr at 4. Dr. Staihr explained that the statewide average cost for the wire centers served by non-rural companies Sprint and SWBT alone is approximately \$28.66 per line per month. *Id.* He testified that the statewide average cost of all Kansas wire centers, including those served by the rural independents, is higher, approximately \$33.75. *Id.* According to Sprint, if the higher statewide average is used as the cost benchmark, the Commission will have to support a greater share of the cost above that average to achieve an acceptable range of reasonable comparability. *Id.* at 5.

105. SWBT recommended that the Commission adopt a 135% cost benchmark applied to statewide averaged costs. Direct Testimony of Morrissey at 6. SWBT advocated this benchmark because it incorporates the same percentage as the FCC's model. *Id.* SWBT maintained that this benchmark more than accounts for the recovery of universal service costs from intrastate and interstate access charges and other services.

Id.

106. CURB, on the other hand, advocated the highest percentage, 150% of statewide average cost (yielding the lowest support). CURB maintained that Kansas' higher average cost justifies a higher benchmark than the FCC established. Direct Testimony of Ostrander, at 14. CURB claimed that 150% was within the range of benchmarks that the FCC considered. *Id.* at 15. CURB maintained that the FCC's model did not address certain forward-looking issues such as the jurisdictional nature of DSL and internet traffic. *Id.* This omission tends to overallocate costs to the states, justifying a higher benchmark. *Id.*

107. Neither Staff nor AT&T took a position on the percentage cost benchmark. However, Dr. Johnson discussed the policy implications of using different percentages. Dr. Johnson testified that if the Commission wants to limit the support flowing from urban Kansas to rural Kansas, and if it wants to ensure that support is narrowly targeted at the areas with the most extreme cost conditions, it should use a relatively high percentage figure. Direct Testimony of Johnson at 67. If the Commission wants to ensure a much broader flow of support by expanding the number of recipients to include those facing less extreme cost conditions, Johnson testified, it should use a lower percentage figure. *Id.* If the Commission wants to follow a middle course, limiting the flow of support from urban to rural Kansas, while still ensuring that support is available to every wire center with costs significantly above the state average, it should use a percentage between 100% and 135%, he concluded. *Id.* at 68. Dr. Johnson's analysis of the policy implications of varying the percentage was not seriously contested by the other parties.

108. As a matter of law, we conclude that the choice of a benchmark is a policy decision for the Commission. In selecting a particular benchmark, the Commission

determines the number of high cost lines that will receive support and the approximate amount of the KUSF assessment that must be paid by Kansas telecommunications customers. Further, the benchmark percentage we select may indirectly affect local service rates. We acknowledge that the FCC has set its national cost benchmark at 135 percent. Ninth Report and Order (FCC 99-306), ¶ 53. However, we are not obligated to set the benchmark for Kansas at the same level.

109. In setting the benchmark, the Commission must carefully balance several policy considerations. If the benchmark is set low, the amount of funds necessary to provide universal service support is larger, requiring a larger assessment on companies, which may elect to recover the assessment from their customers. As a result, customers in low-cost areas would tend to pay higher KUSF charges to offset the costs in high-cost areas. On the other hand, if the benchmark is set higher, the amount necessary to assess for the KUSF is less, and charges to end users would be lower. However, as a result of lower support from the KUSF, local exchange carriers serving high cost areas must absorb a larger portion of the cost to provide service, or seek a rate increase. The ultimate result of a relatively high benchmark percentage may be that customers in high-cost locations may be burdened with higher rates. The Commission must balance all of these considerations.

110. The Commission finds that the middle road suggested by Dr. Johnson represents a reasonable beginning step for a cost-based KUSF. The Commission adopts a cost benchmark of 125% of the average universal service cost per wire center, calculated inclusive of wire centers served by rural incumbents. Based on our Kansas-specific modifications of the FCC's Cost Proxy Model, the statewide average cost of universal service is \$29.16 per month per access line. Adoption of a benchmark of 125% of this figure means that KUSF support will be available to any wire center served by a non-

rural company in which the average cost of universal service exceeds \$36.45 per line per month. The Commission anticipates that this benchmark will promote reasonably comparable urban and rural rates in Kansas, because the KUSF will be supporting wire centers that have average universal service costs in excess of 125% above the statewide average cost of providing universal service.

111. The FCC's cost model, as modified by this order, calculates the average universal service cost on a wire center basis to range from a high of \$356.49 to a low of \$15.66 per month per line for areas served by Sprint and SWBT, the two non-rural companies in Kansas. After high-cost KUSF support is distributed on the basis of the 125% benchmark and the other factors we have adopted for the distribution of support, the amount of remaining universal service costs that must be borne among the carrier, the customer residing in the high-cost wire center area, and other support mechanisms (including the federal universal service fund) will decline to a high of about \$113.26 and a low of \$ 15.66, on a wire center average basis.

112. The size of the KUSF will be dictated by the outcome of company-specific proceedings for SWBT and Sprint, but we anticipate that the amount of high-cost support for the two companies combined during Year 2000 will total approximately \$18 million (assuming Sprint's federal universal service support is deducted), as compared to the current combined KUSF draw of about \$79 million for the two companies. Any transitional KUSF draws related to access rate reductions would be in addition to the \$18 million in high-cost support. As we have noted, company-specific dockets will determine the extent to which the net reduction in revenues for the two companies may be recovered through rate rebalancing.

113. We also note CURB's point that the FCC's model does not address what can be considered current or forward-looking issues, such as the implications of potential

jurisdictional cost assignment changes driven by the availability of digital subscriber line (DSL) services and increased internet traffic. We are aware that these topics are currently the subject of significant debate. We may decide to consider at a later time these and similar issues in KUSF costing.

D. Reduction for Interstate Access Cost Recovery

114. Staff, CURB, and Sprint (on rebuttal) recommended that the Commission allow companies to recover only 76% of the average wire center costs in excess of the cost benchmark. SWBT disagreed with the application of this factor, contending that the KUSF should support 100% of the costs exceeding the benchmark figure.

115. Dr. Johnson explained that it would not be appropriate to pay carriers 100% of the costs in excess of the benchmark, because carriers already recover a portion of these high costs through interstate access charges. Direct Testimony of Johnson at 68. As Dr. Johnson explained, the FCC's separations rules allow carriers to recover 25% of their loop costs and 15% of their port costs, on average, through interstate access rates, as well as 100% of their Local Number Portability costs through the federal portability cost recovery mechanism. *Id.* The FCC concluded, according to Dr. Johnson, that since carriers already recover 24% of their high costs on average through interstate access charges, they should only receive state universal service support for the remaining 76% of costs exceeding the benchmark. *Id.* at 69. Based on this reasoning, Dr. Johnson testified, the KUSF should pay, at most, 75% of the loop costs above the Kansas benchmark and no more than 85% of port costs. For transport costs, an even lesser percentage might be appropriate. *Id.* Dr. Johnson used a composite figure of 76% in his schedules. *Id.*

116. SWBT challenged Dr. Johnson's assumptions in its rebuttal testimony.

SWBT maintained that there is no link between forward-looking model costs and actual cost recovery levels. Rebuttal Testimony of Morrissey at 11. Applying an actual cost recovery factor to support levels based on forward-looking costs would be inconsistent and arbitrary, SWBT maintained. *Id.* Also, SWBT claimed, a benchmark of 135% or 150% would more than account for interstate cost recovery levels, since they far exceed actual average recovery levels that currently exist in SWBT's rates. *Id.* at 11-12. On cross-examination, SWBT's witness conceded that application of the 76% factor may be acceptable if the Commission elects a benchmark percentage less than 135% of the statewide average. Tr. at 1049-51.

117. The Commission concurs with Staff, Sprint and CURB that it should reduce carriers' high cost support from the KUSF by 24% since carriers will generally recover the remaining costs from their interstate access charges.¹ The allocation of 24% of the calculated high-cost support to interstate access charges reflects the current estimated effect of the jurisdictional separations process on the extent to which universal service costs are recovered by interstate access charges. Direct Testimony of Johnson, at 68 (citing Ninth Report and Order (FCC 99-306), at ¶ 63). The FCC reduces carriers' federal universal service support in a similar manner, recognizing the impact of jurisdictional separations and access charges. *Id.* SWBT has not provided credible evidence why the Commission should deviate from the FCC's methodology and reasoning in this regard.

E. Federal USF Support Offset

¹ To the extent that Sprint recovers more than 24% of its high costs from the interstate jurisdiction via access charges, the generic application of a 76% factor is to its advantage.

118. In computing the cost support payment that carriers would receive, Dr. Johnson reduced the payment by the level of the carrier's federal universal service fund recovery. Direct Testimony of Johnson, at 90. Dr. Johnson explained that the federal universal service fund payments compensate carriers for the same high cost problem that the Commission is addressing here. *Id.* Consequently, carriers' KUSF payments should be reduced by the federal universal service fund amount to avoid double recovery. *Id.*

119. At the same time, Dr. Johnson noted that the federal universal service fund and the KUSF do not duplicate purposes. The federal mechanism is focused on ensuring reasonable comparability of rates across the country. *Id.* Because it averages costs at the state level before computing federal support, the FCC limits the amount of support that the federal mechanism pays. *Id.* at 91. The FCC is actually leaving a significant proportion of the high cost problem for the states to resolve, Dr. Johnson explained. *Id.* at 91.

120. At the present time, SWBT does not receive federal universal service support. *Id.* at 92. However, Sprint and all but five of the rural incumbents currently receive federal support. *Id.* at 93; Order 10, ¶ 77 (citing Tr. Vol. 8, at 2203). In Order 10, we concluded that we would address the possibility of double recovery, by virtue of drawing support from both the KUSF and the federal universal service fund, in company-specific dockets after modifications to the calculation of KUSF support are completed in this proceeding. Order 10, ¶ 80.

121. Earlier in this proceeding, the rural telephone companies opposed any offset of federal support. Order 10, ¶ 79. In testimony presented at the hearing on November 30, 1999, however, none of the parties disputed Dr. Johnson's proposed federal universal service support offset. Rebuttal Testimony of Johnson, at 5. Sprint specifically conceded that the federal universal service support should be subtracted from

the amount of high-cost KUSF support calculated by the model for its service areas. Direct Testimony of Harper, at 8.

122. Consistent with its decision in Order 10, ¶ 80, the Commission generally intends to explore the possibility of double recovery from federal and state universal service funds in company-specific proceedings. While the Commission agrees in principle with the proposed offset of federal universal service support, we believe it is important to consider this issue in conjunction with an overall analysis of company-specific revenues and costs. The FCC's refinement of the Cost Proxy Model for rural areas may also affect the amount of federal high-cost support that will be available to Sprint and the rural local exchange carriers.

123. As noted previously, however, Sprint did not object to the proposed deduction of federal universal service support from the KUSF high-cost support calculated by the model. Therefore, we will deduct Sprint's federal universal service support from its projected cost-based KUSF draw when we calculate the Year 2000 KUSF assessment.

VI. DISTRIBUTION OF SUPPORT

A. Zone Targeting

124. In Order 10, the Commission required parties to submit evidence showing costs geographically deaveraged below the wire center level. While the FCC's model derives forward-looking costs at the wire center level, the Commission wanted to analyze the effect of breaking costs down more finely between the more urban lines and the lines outside the base rate area. Order 10, ¶ 57. This process would further identify specific areas that might need high cost support, separating them from more urban areas within wire centers that might not.

125. Staff supported an approach that disaggregates costs and support payments within the wire center. Staff cited a September 9, 1999 FCC decision approving geographically deaveraged federal high cost payments in Washington state, which targeted support to the higher cost portions of companies' geographic service areas. Direct Testimony of Johnson at 75 (citing FCC Order No. DA 99-1844, ¶ 12 (Sept. 9, 1999)). Staff identified a number of advantages to such a zone targeting approach. *Id.* at 75-77. Customers in town are actually quite inexpensive to serve in many rural wire centers. *Id.* at 76. These wire centers appear to have high costs because customers outside of town are very costly to serve. *Id.* In a monopoly environment, providers may average costs broadly within a wire center, shifting some of the costs of serving high-cost lines to other customers without fear of losing the lower cost customers to another provider. *Id.* at 75. In a competitive environment, if equal support is provided to all lines within a wire center, competitors would be encouraged to serve only the lower-cost, urban portions of the wire center. *Id.* at 76-77. Further, the support payments that competitors would receive for those lines would not necessarily relate to the extent to which they serve high-cost customers. *Id.* at 77.

126. Dr. Johnson recommended that if the Commission wants to deaverage costs below the wire center level, it should adopt this approach from the beginning, even if the initial effort is approximate. *Id.* Dr. Johnson observed that competition is just beginning in rural Kansas, and the KUSF design will have a significant impact on competitive local exchange carriers' investment and entry decisions. Uncertainty as to which areas will be designated high-cost and receive support will have a chilling effect on new entrants' investment decisions. *Id.* Dr. Johnson testified that while the FCC model does not specifically allocate costs between zones, it provides detailed information concerning clusters of customers that may be sorted into zones in a calculation outside

the model. *Id.* at 79. Dr. Johnson used the FCC model's measure of each cluster's net density as the primary criterion in identifying low and high-cost customers within the wire center. *Id.*

127. Dr. Johnson described two specific methods of using zones to develop support payments. Under the "primary zone" method, the Commission would take the support amounts developed based on the wire center's average per-line cost, and distribute support within the wire center based on the zone-specific cost information. *Id.* at 84. Zone data would be used only to target support to the highest cost portion of the wire center, not to determine the size of the fund. *Id.* Under the "alternative zone" approach, the Commission would provide support for all eligible lines in each zone to the extent the average cost per line in that zone exceeds the statewide benchmark. *Id.* In this way, support would be provided to all high-cost zones, regardless of whether the respective wire center's overall average costs exceed the benchmark. *Id.* at 85. Dr. Johnson characterized the primary zone approach as a compromise. Rebuttal Testimony of Johnson at 16. It targets support more tightly than the wire center approach, but does not go as far as the alternative approach in relying on zone-specific data, thereby increasing the size of the KUSF. *Id.*

128. All parties acknowledged the benefits of targeting support within wire centers, although they differed as to timing, specific approach and other cost considerations. SWBT's witness saw merit in the zone approach, but was concerned about the additional complexity involved in calculating and administering the fund under a zone concept. Direct Testimony of Morrissey, at 13. SWBT instead recommended relying on regulatory safeguards and rules to ensure that competitive local exchange carriers receive only a fair share of portable KUSF support. *Id.* at 14. SWBT described rules adopted by the Texas Public Utility Commission that address sharing of support

between competitors and incumbent local exchange carriers where a customer is served through their combined facilities. *Id.* at 16.

129. CURB agreed conceptually with the zone approach in direct testimony, but recommended that the Commission defer consideration of the issue to the future after reviewing more information. Direct Testimony of Ostrander at 11; Rebuttal Testimony of Ostrander at 13. SIA strongly supported the zone concept generally as a reasonable method to target support to high cost customers. Direct Testimony of Barron at 14. Mr. Barron urged the Commission to disaggregate support areas to provide portable support only where most needed. *Id.* at 15.

130. AT&T concurred with Dr. Johnson that a zone approach would segregate high and low-cost loops within a wire center. Rebuttal Testimony of Donovan at 4. AT&T urged the Commission to consider the costs of administration and other related software costs that would have to be paid out of the fund, and to weigh the benefits of deaveraging against the additional burden on carriers paying into the fund. *Id.* Sprint was the only party advocating the more far-reaching alternative zone approach. Sprint maintained that this method would fully support all high-cost lines without averaging their high costs with the cost of other lower-cost lines, generally representing the downtown portion of the wire center. Direct Testimony of Staihr, at 6-7.

131. The Commission concurs with the parties that a zone approach will enable KUSF payments to be more finely targeted to high cost customers within wire centers. After weighing the various advantages of the different methods, the Commission finds that the primary zone approach is a fair and reasonable method as a first step for administering support payments in Kansas. This approach directs support to customers most needing support, while also setting some outward limits on the fund size and administrative costs. The primary zone approach does not provide KUSF support to

either incumbents or competitors serving low-cost access lines in town, but instead provides support for both incumbents and competitors serving high-cost access lines, which are primarily located outside of town. This method of targeting support will send realistic signals to competitors for investment and entry decisions, affording them high-cost support only where higher costs in fact occur. For these reasons, the primary zone approach will promote sufficient, specific and predictable state high-cost support to the areas where it is most warranted.

132. The Commission believes that it is in the public interest to adopt a zone-targeted approach from the start, so that competitors will be able to reasonably assess entry opportunities in the state. Incumbent companies as well as competitors will be properly supported for their service of high cost customers. After gaining experience with zone targeting, the Commission may elect to consider a more targeted approach such as the alternative zone method proposed by Dr. Johnson.

133. The Commission adopts the “primary zone” methodology that Dr. Johnson proposes for allocating support between high and low-cost zones within each wire center. As outlined above, this means the total support amount, calculated on the basis of the wire center’s average cost per line, would be directed to the high cost zones in that wire center. Zone data would be used only to target support to the highest cost areas of the wire center, not to determine the size of the KUSF.

134. We note that in its Proposed Findings of Fact and Conclusions of Law filed December 13, 1999, Staff proposed that the Commission implement primary zone targeting on the basis of the current method of zone identification used by Sprint and SWBT for zones inside (IBRA) and outside (OBRA) the base rate areas. However, we do not believe the evidence in the record is sufficient to support a decision to adopt any particular methodology for distinguishing between high-cost and low-cost zones within a

wire center.

135. We direct Staff and the other parties to propose a feasible plan for identifying high-cost and low-cost zones within each wire center for purposes of targeting support to the high-cost locations within each wire center, effective March 1, 2000. The evidence in the record before us is insufficient to determine whether the method suggested by Dr. Johnson, using the FCC's information concerning customer clusters, is a feasible method for implementation by March 1, 2000. The parties are directed to address this implementation issue in Docket No. 00-GIMT-236-GIT. In that proceeding, scheduled for hearing January 13, 2000, we will establish the KUSF assessment percentage for Year 2000. Based on the record developed in that proceeding, we will also address specifically how to implement primary zone targeting of KUSF support.

B. Portability

136. When the Commission established the KUSF in 1996, it recognized that high-cost support should be portable to eligible competitors. Docket No. 94-GIMT-478-GIT (190,492-U), Order issued December 27, 1996, at ¶¶ 121-125. The Commission concluded in Order 10 that since the KUSF is intended to support continuation of universal service under competitive conditions, support must be portable to any company and must not be based on or reliant on the cost characteristics of any one company. Order 10, ¶ 42. The Commission held that all carriers that qualify as eligible telecommunications carriers (ETCs), regardless of the technology used, are eligible to receive KUSF support, and will receive the same support as calculated in this proceeding. Order 10, ¶ 130.¹ The Commission's decision in this order targeting the support that will

¹ This conclusion is consistent with the requirement of the Kansas Act that distributions from the KUSF must be made in a competitively neutral manner to eligible carriers. K.S.A. 1998 Supp. 66-2008 (c). See *supra* ¶ 15.

be portable to the highest cost areas reasonably balances the promotion of universal service and competition policies within Kansas. *See* K.S.A. 1998 Supp. 66-2001(a), (b).

137. All the rural local exchange carriers in Kansas continue to enjoy the federally-established rural exemption from most forms of local competition due to their small size and high-cost service areas. *See* 47 U.S.C. § 251(f)(1). The rural independent companies took a strong position in this case favoring zone targeting of support because it relates directly to the portability of universal service support. Direct Testimony of Barron at 14. Mr. Barron testified that if the Commission decides to designate competitive carriers as eligible telecommunications carriers in rural areas, it must disaggregate the support areas to provide portable support only where it is needed. *Id.* at 15.

138. The Commission confirms its conclusions set forth in this and other proceedings to the effect that its policy is to make KUSF support portable to eligible telecommunications carriers throughout Kansas. The Commission has not extended the use of the forward-looking cost model to the rural incumbent local exchange carriers in this proceeding. The support that they will continue to receive from the KUSF, however, will be portable to other eligible telecommunications carriers if and when they become eligible to receive KUSF support in the rural incumbents' service areas. In addition, any transitional support other carriers continue to receive from the KUSF related to mandatory reductions in intrastate access rates will be portable to competitive local exchange carriers along with their high-cost KUSF support.

139. Beginning March 1, 2000, the amount of portable support in areas currently served by rural incumbent telephone companies will be determined by dividing the rural incumbent's monthly KUSF draw by the number of access lines it serves that are eligible for KUSF support. The amount of portable KUSF support for each line shall

be calculated on the basis of the primary zone methodology we adopt in this order for non-rural carriers.

140. To the extent the Commission authorizes transitional access-related support, Staff is directed to calculate the portion of the incumbent's transitional access-related KUSF support that will be portable to a competitor. While Staff need not make these specific calculations until such time as a competitor claims portable KUSF support, Staff should be responsive to competitive local exchange carriers' questions concerning the amount of high-cost KUSF support that would be available for particular locations, in order to assist competitors in making business decisions.

C. Threshold Support Level

141. Dr. Johnson suggested that the Commission could set a minimum support level for any wire center to be eligible for payment of KUSF support. Direct Testimony of Johnson at 71. Some wire centers may have costs that exceed the benchmark by a very small amount. *Id.* Dr. Johnson questioned whether providing a minimal funding level justifies the administrative burden associated with calculating and disbursing such a small payment. *Id.* Dr. Johnson concluded that it would be reasonable for the Commission to limit KUSF payments to wire centers where the payments would exceed a certain minimum level, such as \$1,000 per month. *Id.* at 72. SWBT agreed with Dr. Johnson's recommendation. Rebuttal Testimony of Morrissey, at 13.

142. Sprint, however, disagreed with setting a minimum KUSF payment. Sprint preferred that the Commission set the minimum payment level at zero so that all wire centers with costs over the benchmark would receive support, no matter how small. Direct Testimony of Staihr, at 11. Dr. Johnson testified on rebuttal that the amount of KUSF support that Sprint would forego if a \$1,000 monthly payment threshold

were established would only be \$32,940 per year, for four wire centers. For SWBT, five wire centers would forego support totaling \$23,360 per year. Rebuttal Testimony of Johnson, at 18.² Dr. Johnson also testified that a threshold figure between zero and \$1,000 could be adopted, such as \$500. *Id.* at 18-19.

143. The Commission concurs with Staff and SWBT that it is reasonable to set a threshold level of KUSF support payments to avoid imposing a disproportionate administrative burden on the KUSF compared to the benefit received by the carrier or carriers serving the wire center. As Dr. Johnson noted in his rebuttal testimony, this is a policy issue for the Commission to decide, balancing the need for adequate high-cost support against the administrative costs associated with providing *de minimis* support. *Id.* at 19.

144. The Commission finds that \$500 per month is a reasonable minimum support level to trigger payment from the KUSF to the carrier or carriers serving any single wire center. If the calculated monthly KUSF support for any wire center is less than \$500, no KUSF support will be provided to any carrier serving that wire center. However, we emphasize that the \$500 monthly threshold applies to each wire center, not each carrier. If a carrier serves any access lines in a wire center for which KUSF support exceeds \$500 in any month, that carrier will receive KUSF support for each line it serves, even if the payment to any single carrier may be less than \$500.

D. Sharing of KUSF Support with Competitive Local Exchange Carriers

145. SWBT proposed that the Commission examine universal service support

²¹³ These calculations assume a 135% benchmark. Rebuttal Testimony of Johnson, at 18.

sharing rules adopted by the Texas Public Utility Commission. Support would be shared between incumbent and competitive local exchange carriers when the competitor provides service through the lease of the incumbent's unbundled network elements. The Texas rules address how incumbents and competitors would share universal service support either solely or partially through the lease of unbundled network elements from the incumbent carrier.³

146. AT&T opposed SWBT's sharing proposal. Rebuttal Testimony of Rhinehart, at 2. AT&T explained the history of the Texas rules, and claimed that the Texas Commission had not finalized its sharing policies. *Id.* at 3-8. AT&T in essence asserts that SWBT's proposal is inconsistent with a recent FCC ruling on sharing of federal universal service support. *See* Rebuttal Testimony of Rhinehart, at 11 (citing 47 C.F.R. § 54.307). AT&T questioned the fairness of the Texas rules and suggested that

³¹⁴ Competitive local exchange carriers that provide service exclusively through resale do not bear any cost of serving the wire center in excess of the amount they pay the incumbent at wholesale for the service. Because the amount they pay at wholesale is a discounted price from the incumbent's retail price, resellers are ineligible for support for lines they serve. High cost support for lines served by resellers continues to go to the underlying carrier, who bears the actual cost of universal service in excess of the retail rates it charges. Ninth Report and Order, ¶ 91 n.243.

the issue had not been sufficiently well developed in this case to support a decision to adopt them. *Id.* at 12. Staff also testified that KUSF sharing rules would need to be carefully analyzed and debated before adopting them for use in Kansas. Rebuttal Testimony of Johnson, at 9.

147. The Commission concurs with AT&T and Staff that the issue of how KUSF support should be shared between an incumbent and a competitor, where service is provided to a customer through the combined facilities of the incumbent and the competitor, has not been sufficiently well developed on this record to serve as a basis for Commission decision-making. Few parties have presented evidence on this issue. The Texas Commission appears to be still in the process of finalizing its rules. Therefore, the Commission will defer consideration of this issue to proceedings specifically addressing issues related to unbundled network elements, including Docket No. 97-SCCC-149-GIT, which is presently pending.

E. Unbundled Network Element Subzones

148. On a related matter, the Commission previously deferred the issue of establishing definitions for unbundled network element zones and subzones until after it developed forward-looking costs by wire center in this proceeding. *See* Order on Reconsideration, Docket No. 97-SCCC-149-GIT, September 17, 1999, ¶ 93. As noted by Staff, we chose not to stratify unbundled network element loop rates for the rural zone at that time.

Kansas Universal Service Fund costing issues are pending for SWBT in Docket No. 99-GIMT-326-GIT. Rather than stating the UNE loop rates for SWBT now, based on the definition of subzones underlying Staff's proposal, we prefer to defer determination regarding the definition of zones and subzones from that proceeding. We see little or no advantage to competition to establishing these rates now, and then perhaps changing the underlying subzone definition to conform with that determined in the

KUSF proceeding—thereby causing changes to those rates some months following this Order.

Id. ¶93.

149. Staff suggested that there are several options to deal with this issue now that KUSF costing issues have been resolved. Staff suggested some or all of the following options may be considered by the Commission:

1. Alter the UNE rates in the rural zone, providing the incumbent LEC with an opportunity to align its UNE rates with the level of specificity used in developing KUSF support. This will reduce the disparity between the UNE prices and KUSF support. For SWBT, this alignment could be accomplished by allowing the Company either to submit new UNE cost studies which are more consistent with the KUSF system, or by allowing the Company to submit a plan for “revenue neutral” realignment of their existing UNE rates consistent with the KUSF system.
2. Adopt the FCC rule which coordinates the KUSF support to match the UNE prices.
3. Schedule a proceeding to consider more comprehensive rules, like the ones adopted in Texas.

Rebuttal Testimony of Johnson, at 10-11. At the hearing, Dr. Johnson testified, [O]nce you know what the system of . . . KUSF support is, various parties will have strong opinions about what should happen to those UNE rates, and you will have that issue being presented to you and you’ll have an opportunity to revisit the rates. And I suspect many will agree that some revision [of the UNE rates] is appropriate.

Tr. 1006.

150. We believe that the options outlined by Staff, as set forth above, are necessary to consider in order to bring the deaveraging issue to conclusion. We will solicit comments on this matter, and gather any further necessary information for a decision, in other proceedings specifically addressing issues related to unbundled network elements.

VII. IMPLEMENTATION

A. Accounting for Differences in Cost Recovery Compared to Current KUSF

151. At the various stages of this proceeding, the Commission has been cognizant that its decisions regarding the establishment of a cost-based KUSF would likely have a significant impact on the amount incumbent local exchange carriers have drawn in universal service support. As we noted in Order 10, the impact on carrier revenues of shifting the KUSF to a high-cost support mechanism may be mitigated by rate rebalancing. With respect to Sprint and SWBT, both of which are non-rural local exchange companies for purposes of the Kansas Act, rate rebalancing is entirely within the discretion of the Commission. Order 10, ¶ 105; *see* K.S.A. 1998 Supp. 66-2005(c).⁴

152. As we concluded previously, we will address the issue of rate rebalancing in company-specific dockets, based upon an analysis of the carrier's underlying costs and the specific evidence presented in those proceedings. Order 10, ¶ 105.

1. SWBT Implementation

153. With respect to SWBT, we have previously opened a company-specific docket to investigate the costs SWBT incurs to provide universal service. *See* Docket No. 98-SWBT-677-GIT. In that proceeding the parties have reached a proposed settlement, which has been submitted to the Commission for consideration and approval.

154. We have not yet acted upon the proposed Stipulation and Agreement,

⁴ To a limited extent, rate rebalancing for rural incumbent local exchange carriers is governed by K.S.A. 1998 Supp. 66-2005(d). For companies with monthly basic local service rates lower than the statewide average rural telephone company rates for such services, calculated as of March 1, 1996, rates must be increased annually by \$1 per month until local service rates reach the average; otherwise, the company's KUSF draw is reduced by the amount the company would have generated by increasing its rates. *Id.* Otherwise, rate rebalancing for rural companies is also within the discretion of the Commission.

because its impact is heavily dependent on the outcome of this proceeding to establish the parameters of a cost-based KUSF. Whether we approve the Stipulation and Agreement or proceed in a different direction, however, we intend to address implementation issues for SWBT in the company-specific docket, including the extent to which rate rebalancing is appropriate.

2. Sprint Implementation

155. Sprint contends that the Commission is required to maintain revenue neutrality on a company-specific basis in its implementation of a cost-based KUSF. Rebuttal Testimony of Harper, at 12; Tr. at 1064. In other words, Sprint maintains that if its KUSF draw as a result of this proceeding is less than the amount of its KUSF draw to replace access reductions, the Commission must allow the difference to be rebalanced to local rates. Sprint also suggests that if the cost-based KUSF draw for Sprint determined in this proceeding should exceed the amount of its current draw, Sprint will further reduce its intrastate access and toll rates to the extent necessary to offset the increase in KUSF support so that Sprint will remain revenue neutral. Tr. at 1064.

156. Subsequent to the hearing in this proceeding, Staff filed a motion requesting the Commission to open a company-specific investigation to determine Sprint's costs to provide local service. *See* Docket No. 00-UTDT-455-GIT (motion filed December 6, 1999). Staff suggests a proceeding is warranted to determine whether any price increases would be justified if Sprint receives less KUSF support than it currently draws. The Commission has taken the motion under advisement, but we note that we have deferred a number of related decisions to company-specific proceedings. *See, e.g.*, Docket No. 99-GIMT-784-GIT, Order on Briefed Issues ¶ 28, issued November 30, 1999

(whether Sprint should further reduce intrastate access rates, and if so, to what extent); Docket No. 98-GIMT-326-GIT, Order 10, ¶ 80 (whether companies are double-recovering as a result of receiving both KUSF and federal universal service support); ¶ 105 (whether rate rebalancing is appropriate, and if so, to what extent). We will address implementation issues for Sprint in Docket No. 00-UTDT-455-GIT.

157. We acknowledge Sprint's request, submitted to the Commission in its post-hearing brief, to be "held harmless" for Year 2000 from the impact of the decisions we reach in this order, pending the conclusion of Docket No. 00-UTDT-455-GIT. We decline to do so, however, because it is time to conclude this proceeding and finalize our modification of the KUSF to a high-cost support mechanism, consistent with federal and state law. We intend to initiate the company-specific proceeding for Sprint as soon as practicable after the conclusion of this proceeding and the determination of the Year 2000 KUSF assessment in Docket No. 00-GIMT-236-GIT. We intend to move forward in our transition to a cost-based KUSF. Assuming the cooperation of the parties in expediting the conclusion of Sprint's company-specific proceeding, we will have the opportunity to adjust Sprint's KUSF distributions during year 2000, if necessitated by the outcome of that proceeding. However, the Year 2000 KUSF assessment to carriers, which we intend to implement on or about March 1, 2000, shall be calculated on the basis of the decisions we have reached in this order.

B. Revenue Neutrality

158. As noted above, Sprint maintains that the Kansas Act requires the Commission to ensure that the transition to a cost-based KUSF is carried out in a revenue-neutral manner. Rebuttal Testimony of Harper, at 12. The Commission does not agree that the Kansas Act guarantees revenue neutrality for incumbent local exchange

carriers as a general rule on an ongoing basis. To the extent revenue neutrality is required by the Kansas Act, it is carefully limited to revenues lost as a result of access rate reductions directed by the Act. Whenever the Kansas Act refers to revenue neutrality, it does so in the context of mandated access reductions. *See* K.S.A. 1998 Supp. 66-2005(c), (d), (g) (referring to revenue neutral rate rebalancing under subsection (c)); (h) (same); 66-2007(a); 66-2008(a), (e). The Commission has the authority and obligation to review the KUSF periodically in conjunction with the costs incurred to provide local service and determine whether modifications to the KUSF are warranted. K.S.A. 1998 Supp. 66-2008(d). In this proceeding, we have determined that KUSF distributions should be targeted to support high-cost wire centers and subzones, and we modify the KUSF accordingly.

159. We specifically find that the Kansas Act does not ensure revenue neutrality for incumbent local exchange carriers on an ongoing basis, as the telecommunications industry transitions into a competitive era. Any reduction in a company's KUSF draw that is unrelated to mandatory reductions in intrastate access rates to interstate levels does not require revenue-neutral treatment. To interpret the statute otherwise would be inconsistent with the Federal Telecommunications Act, the pro-competitive policies set forth in the Kansas Act, *see* K.S.A. 1998 Supp. 66-2001(b), and the statutory requirement that KUSF distributions be made in a competitively neutral manner. K.S.A. 1998 Supp. 66-2008(c). As we make the transition to a cost-based KUSF, we recognize that the marginal amount of revenues lost as a result of further intrastate access reductions will diminish proportionately as intrastate access rates approach interstate levels.

160. We believe the language of the Kansas Act provided for revenue neutrality as a transitional means to protect the intrastate revenue stream of incumbents, but only

until such time as reductions in intrastate access rates to interstate levels are no longer mandatory. This interpretation is consistent with the holding of the Kansas Supreme Court in *Citizens' Utility Ratepayer Board v. Kansas Corporation Comm'n*, 264 Kan. 363, 956 P.2d 685 (1998), that “revenue neutral” is a transitional concept, and refers only to the replacement of revenues lost by local exchange carriers by the ordered reductions in intrastate access rates. *Id.* at 379, 382. As we make further refinements to the KUSF as a mechanism for supporting high-cost universal service, revenue neutrality may be one factor for us to consider, but it is no longer a requirement except to the extent of any further mandatory intrastate access rate reductions to interstate levels.⁵

161. With respect to Sprint, we agree that rate rebalancing may be warranted to the extent that its cost-based draw from the KUSF, as determined in this proceeding, is less than the amount Sprint has drawn in the past. As noted in Order 10, we will defer our decision on rate rebalancing until we have had an opportunity to analyze Sprint’s access rates and its costs for providing universal service in Docket No. 00-UTDT-455-GIT.

C. Limiting KUSF Support to Primary Residential Lines

162. In accordance with our direction in Order 10, ¶ 68, Staff is developing a plan to address the administrative and technical issues related to our policy decision to support only primary lines for residential customers. Direct Testimony of Johnson, at 72; Rebuttal Testimony of Johnson, at 5-7. As directed by the Commission in Order 10, Staff

⁵¹⁶ We note that KUSF draws are not mandatory in order to ensure revenue neutrality with respect to further mandatory reductions in intrastate access rates. Under the Kansas Act, we have the discretion to order rate rebalancing to make up for any revenue losses resulting from further intrastate access reductions. *See supra* ¶¶ 151-52. Further, as we note in ¶¶ 138-40, any transitional support we may authorize from the KUSF related to intrastate access reductions would be fully portable to competitors designated as eligible telecommunications carriers. The implicit subsidies in intrastate access rates would either be eliminated by rate rebalancing, or they would be made explicit in the form of portable KUSF support.

will present its plan to the Commission no later than March 1, 2000. As a practical matter, the Commission concludes that insufficient time remains before we must determine the Year 2000 KUSF assessment to assume that KUSF support for Year 2000 will be limited to primary lines for residential customers.

163. For purposes of this proceeding, Staff estimated the impact of the cost benchmark and other aspects of the cost-based KUSF using the FCC model's default methodology for identifying primary residential lines and single-line businesses. Direct Testimony of Johnson, at 72. While the FCC model's line counts are not identical to the actual definition of primary lines that will be used in administering the KUSF, the default line counts in the FCC's model provide an adequate basis for considering the impact of our decisions in this proceeding. *Id.*; Rebuttal Testimony of Johnson, at 6-7.

164. According to Dr. Johnson, the net impact on the KUSF of providing support for all residential lines served by SWBT and Sprint, rather than limiting support to primary residential lines, varies from an estimated \$ 1.6 million assuming a benchmark of 135%, to \$ 2.1 million assuming a benchmark of 115%. *See* Rebuttal Testimony of Johnson, at 7 & Table 1. For purposes of calculating Year 2000 KUSF support on the basis of the 125% benchmark we adopt in this order, we anticipate an estimated demand on the KUSF of about \$ 1.85 million for Year 2000, assuming we defer implementation of our decision to limit support to primary lines of residential customers until Year 2001.

165. We urge Staff to submit its report on how best to implement our policy decision as soon as practicable, in order to minimize this demand on the KUSF. As we have explained in Orders 10 and 15, we do not consider secondary residential lines to be necessary for the provision of basic universal service, and we are reluctant to burden all telephone carriers and their customers with the additional amount necessary to fund KUSF support for secondary residential lines. As soon as we can implement our policy

decision to limit KUSF support to primary lines for residential customers, we wish to do so, in order to further reduce demands on the KUSF. Any savings we can incur in Year 2000 upon implementation of this policy will generate a higher KUSF reserve balance, thereby offsetting the amount to be assessed to carriers for Year 2001.

D. Line Counts

166. The Commission finds that KUSF distributions to carriers should be made on the basis of the number of lines actually served that are eligible for KUSF support. Rebuttal Testimony of Johnson, at 5. To be as accurate as possible in projecting the amount of funding necessary for the KUSF, calculations should be based upon the most recent available data on the number of KUSF-eligible lines served by each carrier.

167. The evidence submitted by SWBT for purposes of this proceeding provided line counts accurate as of October 1999. However, Sprint provided December 1998 line count data. The October 1999 line count data is more recent and, thus, more accurate. The Commission finds that KUSF calculations for Year 2000 should rely upon the October 1999 data to the extent Sprint has made updated line counts available in response to Staff's request. *See* Rebuttal Testimony of Johnson, at 5. In future years, the assessment against carriers for the KUSF shall be based upon the most recent line count data available, as determined by Staff.

VIII. QUALITY OF SERVICE

168. The issue of quality of service provided by recipients of KUSF support arose in this proceeding. Dr. Johnson explained that in designing its forward-looking cost model, the FCC reflected a higher quality of service standard than is actually being

delivered to customers at the present time. Tr. at 922. The model projects the hypothetical costs of an efficient carrier using the best available technology and network. Order 10 ¶ 45. Dr. Johnson testified that to the extent the Commission computes support levels based on this model, it is providing funding based on a higher quality network than exists in many rural communities. Tr. at 922. Dr. Johnson suggested that the Commission consider attaching conditions to the funding or creating a sliding scale of payment related to quality levels to assure that carriers would use the funds to upgrade their networks to the level envisioned by the model. Tr. at 991.

169. The Commission agrees with Dr. Johnson's observations. Currently, the Commission's quality of service standards established in Docket No. 191,206 (Order issued December 24, 1996) apply to all certificated local exchange carriers. The Commission has directed Staff to review its quality of service standards to determine if it is feasible and appropriate to apply those same standards to all eligible telecommunications carriers, including wireless providers. *See* Order 10, ¶ 131. This will be a reasonable first step toward determining whether KUSF payments should be conditioned upon carriers' provision of high quality service.

IX. CONCLUSION

170. The Commission appreciates the parties' efforts in developing consensus on the great majority of model inputs and other related issues in this proceeding. It is apparent that the parties have worked hard on reaching agreement on many issues so that a decision could be reached on the high-cost model in an expeditious manner. The Commission particularly appreciates the participation of the rural independents that were not directly affected by this determination. Their testimony helped in the development of

a preliminary record concerning rural cost considerations.

171. We note that the decisions we have reached in this order reflect the first stage of implementing a cost-based KUSF. Like the parties, the Commission has reached consensus on the issues presented to us for determination, but we do so recognizing that we do not have sufficient information to thoroughly analyze the net impact of our decisions in this docket on rates. Because Sprint and SWBT have both elected price-cap regulation, they have considerable discretion to modify their rates within the constraints of their price caps. Further, to a considerable degree the rate impact of our decisions today will be contingent upon our decision whether to approve the pending stipulation in Docket No. 98-SWBT-677-GIT, as well as the decisions we will make in the near future specific to Sprint in Docket No. 00-UTDT-455-GIT.

172. Once the price-cap companies file tariffs showing their respective modified rate structures, we direct Staff to review the rates in detail and file a Report and Recommendation analyzing the extent to which our high-cost support mechanism for intrastate universal service costs has resulted in reasonably comparable rates for similar services for urban and rural customers.

173. The net effect of our decisions in this order will significantly reduce the KUSF from its present level. While other pending decisions will partially offset this reduction, we conclude that our first step in modifying the KUSF to a cost-based support mechanism for universal service will have a positive impact for carriers and customers alike by significantly reducing demands on the KUSF. At the same time, we are providing explicit incentives to competitive local exchange carriers by targeting high-cost support to those lines located within wire center zones that have the highest average cost of providing universal service.

174. The decisions we have made in this order will likely be modified over

time as we gain more experience with a high-cost support mechanism. However, we conclude that we have taken a significant step toward (1) encouraging competition in the highest cost locations in Kansas, (2) reducing demands on the KUSF and thereby reducing amounts that carriers may elect to pass through to customers, and (3) ensuring that rates in urban and rural areas are reasonably comparable for similar services.

IT IS, THEREFORE, BY THE COMMISSION ORDERED THAT:

A. Except as otherwise specifically provided in this Order, the Commission hereby adopts the default input values for the FCC's Cost Proxy Model as set forth in the Tenth Report and Order (FCC 99-304), for purposes of calculating the cost of universal service in wire centers presently served by non-rural local exchange companies in Kansas.

B. The Commission adopts the baseline input variables to which the parties agreed prior to the hearing, as set forth in the Staff Memorandum dated November 16, 1999.

C. The Commission adopts the additional modifications to the FCC's default variables as recommended by Staff, except that the calculation of the cost of universal service shall assume a 10.15% cost of capital, consistent with the specific components of the cost of capital analysis as presented by Staff in its prefiled testimony.

D. The Commission adopts the modification recommended by CURB to the FCC's default value for common support expenses, which reduces the FCC's default value from \$ 7.32 to \$ 6.32.

E. The Commission specifically rejects Sprint's proposals to calculate the cost of universal service in wire centers currently served by Sprint by adopting company-specific input variables, for the reasons set forth herein. The same input values shall be

used for calculating universal service costs in all wire centers presently served by SWBT and Sprint.

F. For purposes of implementing the transition of the KUSF to a high-cost support mechanism, the Commission adopts the use of a cost benchmark, calculated as 125% of the statewide average cost of universal service at the wire center level.

G. The Commission declines to adopt the recommendation of Staff to provide a lower level of support for transport costs than for loop costs.

H. The Commission adopts Staff's recommendation to account for continued subsidy of high costs through interstate access rates by reducing the calculated amount of universal service support by 24%, consistent with the FCC's approach.

I. Acknowledging Sprint's concession that the amount of federal universal service support it receives should be subtracted from the total KUSF high-cost support for Sprint, the amount of its federal universal service support will be deducted dollar-for-dollar from the amount of KUSF high-cost support for Sprint as calculated by the model.

J. High-cost KUSF support, as well as any transitional amounts of KUSF support provided to non-rural companies related to reductions in intrastate access charges, shall be portable to competitive local exchange carriers in the manner set forth in this order.

K. Access-related KUSF support provided to rural incumbent local exchange carriers shall be portable to competitive local exchange carriers in the manner set forth in this order, upon approval of the competitor's application to provide service in rural territory.

L. For purposes of calculating the amount of KUSF funding for Year 2000, we will continue to assume that KUSF support will be available for all residential lines. As soon as practicable, but no later than March 1, 2000, Staff shall submit a report

recommending a method for limiting KUSF high-cost support to primary residential lines, as well as single-line businesses. The Commission intends to implement its policy decision to limit KUSF support to primary residential lines as soon as it is feasible to do so.

M. Support will be distributed on the basis of the actual number of KUSF-eligible access lines served by each carrier. For purposes of calculating KUSF assessments for Year 2000, updated line counts as of October 1999 for SWBT and Sprint shall be used.

N. KUSF support will be provided to each wire center to the extent that the calculated average cost of universal service in that wire center exceeds the benchmark of \$36.45 per line (125% of the statewide average cost of \$29.16). In order to trigger a payment from the KUSF, the calculated high-cost support for a wire center must exceed a threshold of \$500 in any single month. As long as the KUSF support for the wire center exceeds \$500, any eligible carrier providing universal service within the wire center is entitled to its respective share of KUSF support, even if the payment to any single carrier is less than \$500 for that month.

O. Within each wire center, support will be targeted following the primary zone approach proposed by Staff. The parties shall provide information to the Commission on how to implement primary zone targeting for Year 2000 in Docket No. 00-GIMT-236-GIT. Specifically, the parties should determine how best to distinguish low-cost zones from high-cost zones within each high-cost wire center.

P. The Commission rejects Sprint's request to be "held harmless" from the effect of this order pending the outcome of its company-specific proceeding, 00-UTDT-455-GIT. The Commission will address specific implementation issues for Sprint in Docket No. 00-UTDT-455-GIT, including rate rebalancing.

Q. For all rural local exchange carriers receiving federal universal service support, the Commission will address how to account for the federal high-cost support in the appropriate company-specific proceedings. For purposes of calculating KUSF assessments for Year 2000, no deduction from high-cost KUSF support shall be assumed for rural companies, as defined by the Kansas Act. However, as directed in Order Paragraph I, the amount of KUSF high-cost support distributed to Sprint during Year 2000 will be reduced by the amount of federal universal service support Sprint receives.

R. The Commission will address whether rate rebalancing is warranted, and if so, to what extent, in company-specific proceedings for Sprint and SWBT.

S. The Commission specifically concludes, consistent with the Federal Act and the Kansas Act as interpreted by the Kansas Supreme Court, that revenue neutrality is a transitional requirement under state law, limited to recovery of revenues the carrier establishes have been permanently lost as a direct result of mandatory intrastate access reductions to interstate levels, whether directed by statute or ordered by the Commission. As the Commission modifies the KUSF to a fully cost-based support mechanism as required by federal and state law, revenue neutrality is no longer required.

T. The Commission will address issues concerning the sharing of KUSF high-cost support with competitors providing service exclusively or partially through the lease of unbundled network element when we consider related matters in other proceedings addressing unbundled network elements.

U. The Commission will rely on the record in this proceeding for purposes of continuing its investigation regarding geographically deaveraged subzone prices for unbundled network elements.

V. The Commission directs Staff to review its quality of service standards, originally adopted in Docket No. 191,206 (Order issued December 24, 1996), to

determine if it is feasible and appropriate to condition KUSF distributions on carriers' compliance with those standards.

W. At such time as the parties file tariffs reflecting their revised rate structures as a result of this proceeding and company-specific proceedings, Staff shall review the tariffed rates in detail and file a Report and Recommendation with the Commission addressing the extent to which Sprint and SWBT's revised rates provide reasonably comparable rates between urban and rural areas for similar services. The Report and Recommendation shall be filed with the Commission within 60 days of the filing of each carriers' tariffs.

X. This Order is effective upon service.

Y. A party may file a petition for reconsideration of this order within fifteen days of the date this order is served. If this order is mailed, service is complete upon mailing, and three days may be added to the above time frame.

Z. The Commission retains jurisdiction of the subject matter and the parties for the purpose of entering such further order or orders as it may deem necessary and proper.

BY THE COMMISSION IT IS SO ORDERED.

Wine, Chr.; Claus, Com.; Moline, Com.

Dated: _____

Jeffrey S. Wagaman
Executive Director