

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Federal-State Joint Board on)	CC Docket No. 96-45
Universal Service)	
)	
High-Cost Universal Service Support)	WC Docket No. 05-337

**APPENDICES TO
NASUCA'S COMMENTS ON THE NOTICE OF INQUIRY**

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APPENDIX A

NASUCA'S FIRST ALTERNATIVE PROPOSED NON-RURAL HIGH-COST SUPPORT MECHANISM

The standard for preserving and advancing universal service is based on a comparison of urban and rural rates. Reconciling cost and rates is, therefore, the prerequisite for adopting any cost-based mechanism. In *Qwest I*, the court found that the Commission could use a cost-based mechanism if it could show that such a mechanism would lead to urban and rural rate comparability.¹ In *Qwest II*, the court reiterated and expanded on its finding by stating:

On a separate note, we did intimate in *Qwest I* that we would be inclined to affirm the FCC's cost-based mechanism if it indeed resulted in reasonably comparable rates. However, we expected the Commission to return to us with empirical findings supporting this conclusion. Once again, we find no evidence in the record before us to support the FCC's pairing of rates to costs in this context. In other word, the FCC based the two standard deviations *cost* benchmark on a finding that rates were reasonably comparable, without empirically demonstrating a relationship between costs and rates surveyed in this context.²

Rates can be paired to costs. To do so, however, it is first necessary to understand what type of costs the cost model is estimating. Second, it is not necessary for support to equal the difference between the local rate and the estimated cost in order to ensure that support is sufficient. Urban revenues can be compared to costs in high-cost areas, thus minimizing the need to specifically identify rural areas under this alternative.

¹ *Qwest I*, 258 F.3d at 1202.

² *Qwest II*, 398 F.3d at 1237.

A. THE COST MODEL

The FCC's cost model is a forward-looking economic cost model of a network with the capability to provide the designated universal services. The early debate over the model centered on its forward-looking definition, that is, the model's use of current technology, efficient design and current prices rather than what has been called the actual plant used to provide services. The *Qwest I* court found the use of the model to be reasonable.³ The Supreme Court, moreover, has approved the use of forward-looking costs under the Act.⁴

Overlooked in that debate was the fact that model is actually a model of a network that can provide multiple services in addition to the supported services. The services provided by the network include local exchange service, special access service, access to interexchange service, high-speed service capability, and switched services such as Call Waiting and Caller ID. The fact that the network provides multiple services is clearly demonstrated in the basic criteria the Commission propounded for the development of the model. For example, the FCC held that the model must be able to estimate the cost of not only residential and business basic service but also special access and private line services.⁵ The simultaneous estimation of the cost of special and basic (switched service) allows these services to share facilities such as poles, trenches and conduit and transmission equipment. This sharing reduces the individual costs of both basic and special access services.

³ *Qwest I*, 258 F.3d at 1206.

⁴ *Verizon Communications v. FCC*, 535 U.S. 467 (2002).

⁵ *First Report and Order*, ¶ 250.

The FCC also required that the model not impede the provision of advanced services.⁶ The FCC implemented this mandate by requiring the maximum copper loop length to be no longer than 18,000 feet.⁷ This requirement constructs a network that can provide high-speed services, such as asymmetric digital subscriber line service (“ADSL”).⁸

In addition, the FCC requires that the network constructed by the model be capable of providing all of the designated services included in the universe service package.⁹ Among those services is access to interexchange carriers.¹⁰ The provision of that access uses the same network equipment and facilities that are used to provide local service, as the Commission noted: “The cost of local loops and their associated line cards in local switches, for example, are common with respect to interstate access service and local exchange service, because once these facilities are installed to provide one service they are able to provide the other at no additional cost.”¹¹

The provision of local exchange and access service requires the use of a switch to connect customers to each other and to interexchange carriers. The cost of the switch includes the cost of the processor and the switch software. Therefore, the cost of the

⁶ Id.

⁷ CC Docket No. 96-45, *Fifth Report and Order*, FCC 98-279 (rel. October 28, 1998) (“*Platform Order*”), ¶ 68-70.

⁸ The Commission determined that high-speed services are services with over 200 kbps in at least one direction. See Second Section 206 Report, 15 FCC Recd at 20920; The FCC Synthesis model is not designed to support video services. To provide video service, AT&T Project LightSpeed requires fiber-to-the-node technology, where fiber is brought to within 3,000 feet of the home. “SBC Communications Details Plan for new IP-Based Advanced Television , Data and Voice,” San Antonio, Texas (November 11, 2004), <http://att.sbc.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=21458>. Verizon’s “FiOS” network constructs fiber to the customer’s premise. See http://www22.Verizon.com/FiOSforhome/channels/FiOS/root/faq.asp#fios_q1.

⁹ *First Report and Order*, ¶ 223.

¹⁰ Id., ¶ 56.

¹¹ *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, *First Report and Order*, FCC 96-325 (rel. August 8, 1996), ¶ 678.

switch includes the cost of providing custom calling services such as Call Waiting. In addition, the signaling system that connects the switches and customers depends on Signaling System 7 (“SS7”). This implies that the forward-looking model can also provide services dependent on SS7, such as CallerID.¹²

B. THE DETERMINATION OF A COST BENCHMARK

The purpose of a cost benchmark is to determine a standard for providing support. That is, the Commission will support costs that are above the benchmark. The Commission has previously adopted two cost benchmarks. Neither of these benchmarks, however, was directly related to the ability of a carrier to provide the services supported by the USF. That ability is marked by the relationship between the total revenue that the carrier receives and the cost of the network that provides the supported services. If the revenue is equal to or greater than the cost of service, then the carrier can provide the services. Early on, the Commission looked to revenues as the key to determining universal service support.¹³

The HCM results show clearly that the cost of providing the supported services is higher in rural areas than in urban areas.¹⁴ A carrier can provide the same or comparable services in urban and in rural and high-cost areas under a number of different conditions. First, the carrier can charge the same rate in both areas. The rate would be higher than cost in low-cost urban areas and lower than cost in rural and high-cost areas. This scenario, therefore, uses implicit support through the rate-making process to provide the same services at the same rates. Second, the carrier can charge higher rates in the rural or

¹² *Platform Order*, ¶ 79.

¹³ *First Report and Order*, ¶

¹⁴ See the model results files, <http://www.fcc.gov/wcb/tapd/hcpm/welcome.html>.

high-cost areas. Given the extent of the higher costs in those areas, rates in those areas will have to be increased, making it likely that the rural or high-cost rates will no longer be comparable with urban low-cost rates.

Support needed to produce reasonably comparable rates, however, does not have to equal the difference between the low-cost urban basic exchange rate and the rural or high costs in order to maintain the rural or high-cost basic exchange rate at a level comparable to the low-cost urban basic exchange rate. Rather, the support levels can recognize that urban customers, on average, provide the carrier with revenue in excess of the local rate. As noted above, the network provides multiple services. Therefore, the revenue that supports the network should reflect the expected revenue from those multiple services. These revenues include those from basic service, the SLC, switched access, vertical features and ADSL service.

The following example illustrates these relationships. First, assume that the cost in a low-cost urban area is \$20 and that the rural cost is \$35.¹⁵ Second, set the urban rate at \$10, and assume that the average urban customer purchases a combination of other services that generate an additional \$10 in revenue, thus meeting its costs. The carrier should be able to obtain, on average, the same additional \$10 in revenue from the rural customer. Therefore, in order to maintain the same rate in the urban and rural areas, the carrier only needs \$15 in support, the difference between the urban average revenue per customer and the rural cost. The carrier does not need the difference between the urban rate and rural cost, an amount equal to \$25. Providing the carrier with \$25 in support

¹⁵ It is assumed here that “cost” includes a return on investment.

would be excessive because it would allow the carrier to obtain revenue twice, first from the customer for additional services and again from the universal service fund.

The Joint Board recognized that the network provides multiple services and that the benchmark should not be established as the difference between the [low-cost urban] rate and rural costs. It noted:

We also do not support tying the benchmark to average rates for residential and single line business services because residential and single line business service are only two of the services provided over the facilities for which costs are included in the proxy model cost estimates. Therefore, a rate benchmark would be inconsistent with the method we are recommending for determining the cost of providing the network used to provide the supported services. The average rate benchmark ignores the revenue generated from the customer that contributes to the joint and common costs of providing both that service and those services designated for support.¹⁶

In 1997, the Commission estimated that a revenue benchmark would be approximately \$31 for residential customers.¹⁷ That estimate was based on average (urban and rural) residential revenue. Since that time, per-minute access revenue has decreased and revenue from other sources has increased.

A current revenue benchmark should start from the average urban rate, estimated by NASUCA to be \$19.57.¹⁸ Estimates of other revenue sources are much harder to generate. One reasonable estimation is that, for urban customers vertical services generate between \$4 to \$7, switched access between \$2 to \$3, and DSL services between

¹⁶ CC Docket No. 96-45, *Recommended Decision*, FCC 96J-3 (rel. November 8, 1996), ¶ 315.

¹⁷ *First Report and Order*, ¶ 267.

¹⁸ On average, urban areas have low costs. This does not mean that there are no high-cost urban areas under the Census Bureau's definitions that NASUCA recommends here.

\$5 to \$7 per month.¹⁹ Therefore, the average urban customer provides the carrier with approximately \$31 to \$37 in monthly revenue. NASUCA recommends that the Commission obtain reasonable comprehensive estimates of these revenue flows and determine an average urban revenue benchmark to be used in comparison to the costs in rural and high-cost areas for the purposes of determining universal service support to rural areas.

Under NASUCA's proposed first alternative, states would continue to be required to certify that their rural rates were reasonably comparable to urban rates.²⁰ This would allow states – that have much greater power over local rates than does the Commission – more say in assessing comparability.

NASUCA's first alternative proposal removes the arbitrary foundations of previous benchmarks.²¹ The benchmark directly links revenue, rate and cost, and thus, the mechanism is sufficient, as § 254(e) requires. Under this proposal, there is no incentive for state commissions to de-average their local rates to qualify for additional support.²²

¹⁹ Urban customers' expansive local calling areas mean that they generate less access charge revenue for the non-rural carrier than do rural customers with limited local calling.

²⁰ There might also be a need for some states to certify that the rates in their high-cost urban areas are reasonably comparable to national urban rates.

²¹ NASUCA's second alternative proposal requires the Commission to set a number of benchmarks, primary among which is a rate comparability benchmark **against which rural rates will actually be tested**. Throughout the process, protection from arbitrariness comes from the backstop state mechanism.

²² Under NASUCA's second alternative, increased rural rates could make a state eligible for support, but the actual support award will still be determined based on costs.

APPENDIX B

NASUCA'S SECOND ALTERNATIVE PROPOSED NON-RURAL HIGH-COST SUPPORT MECHANISM

NASUCA proposes a mechanism here that would pass the Tenth Circuit's scrutiny. Fundamentally, the proposal begins and ends with an examination of rates, per § 254(b)(3). The mechanism is designed to create the proper inducements for states to take shared responsibility for universal service²³ and would yield rural rates for non-rural companies that are reasonably comparable to urban rates.²⁴ And this mechanism -- which starts with the current comparability benchmark and then gradually narrows the range of unsupported rates -- thereby takes specific steps to "advance" universal service, as the *Qwest II* court insisted.²⁵ The mechanism would be "sufficient" for universal service purposes, as also required by the *Qwest II* court.²⁶ The Commission's present high-cost support mechanism for non-rural carriers can provide no such assurance.

Under NASUCA's second alternative proposal, rates are used to determine eligibility for support and the effectiveness of support, but they are not used to calculate the amount of support.²⁷ Determination of support occurs using the high-cost model; as previously discussed, NASUCA reiterates here that updating the model must be a high priority for the Commission. Throughout the process, however, states will have recourse

²³ 47 U.S.C. § 254(b)(5); *Qwest I*, 258 F.3d at 1203-1204; *Qwest II*, 398 F.3d at 1238.

²⁴ This proposal focuses on "rural" rates to begin with, addressing "high cost" later in the process, as distinguished from NASUCA's first alternative, which focuses on high-cost areas whether they are rural or not.

²⁵ *Qwest II*, 398 F.3d at 1235-1236.

²⁶ *Id.* at 1233-1234.

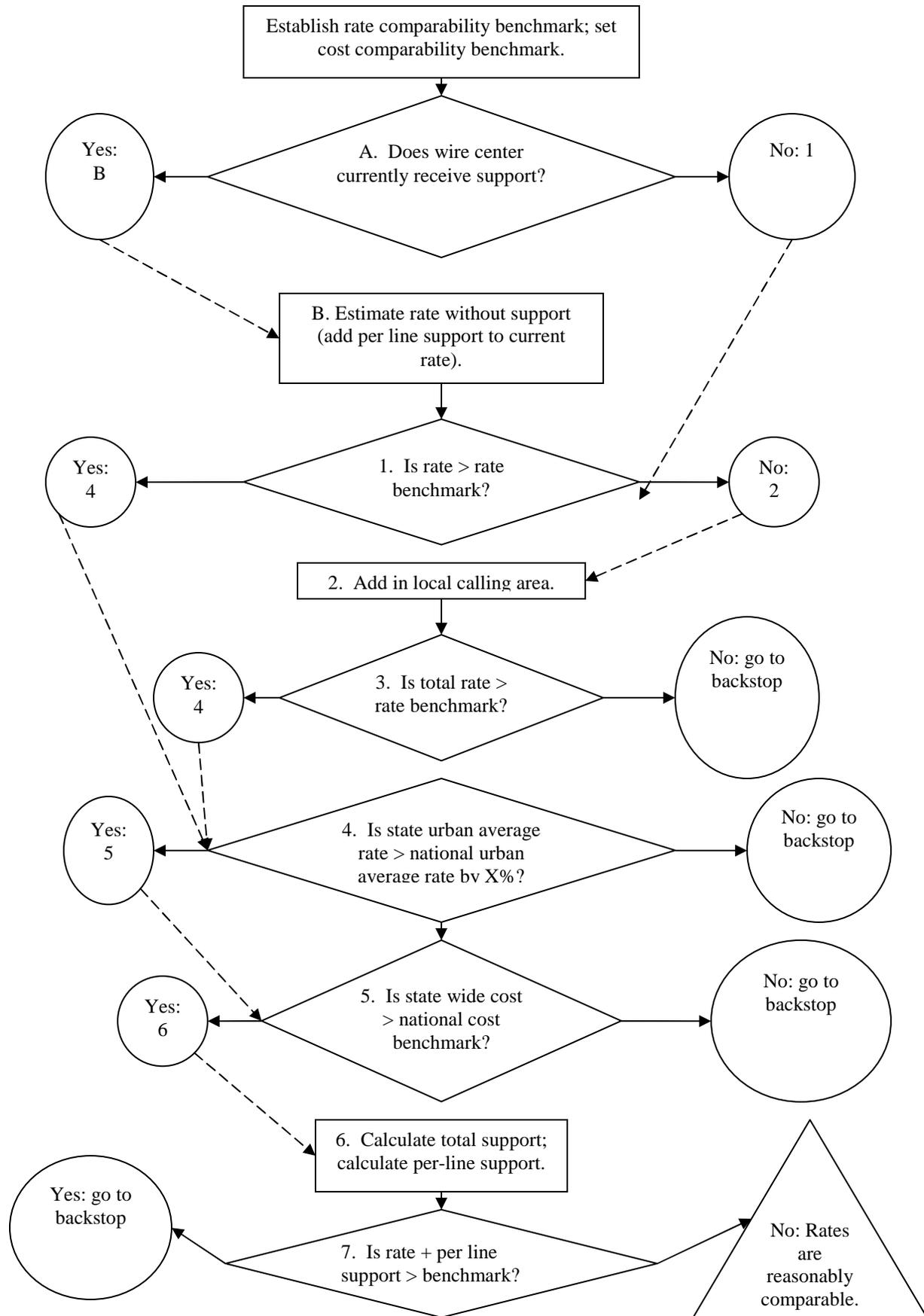
²⁷ The proposal also factors in consideration of support already received, local calling areas, and state ratemaking decisions.

to a state-specific (or carrier-specific) supplemental process, where they will have the opportunity to request additional support.²⁸ This too builds on the Commission's current mechanism.²⁹

The following flowchart depicts the process:

²⁸ The earlier in the process recourse is made to the backstop mechanism, however, the more substantial will be the burden to justify federal support.

²⁹ See Section J., below.



Note that the current universe of non-rural companies is addressed here. In NASUCA's comments on the rural high-cost mechanism, it was proposed that study areas of rural companies that are affiliated with non-rural companies within the same state should be treated as non-rural and combined with the non-rural company study areas.³⁰ NASUCA has not attempted to build this combination into the analysis here.

Based on the data, NASUCA's proposal begins by examining rates on a wire center basis. This is the minimum feasible area. It might be possible to cluster wire centers that share key characteristics.³¹

In terms of priority on the first run-through, the wire centers that need to be addressed first are those whose rates are not reasonably comparable now and do not currently receive any support. Next are those that have rates that are not reasonably comparable but do currently receive support.³² Both of these would be with a view to adding or increasing support in order to make those rates reasonably comparable. After that, the wire centers that receive support but whose rates would be reasonably comparable even without that support can be examined, with a view to eliminating the support. Other wire centers could be relegated to the backstop mechanism, for their states to plead their case for support. After that, the review would be accomplished on an

³⁰ CC Docket 96-45, NASUCA Reply Comments on Rules Relating to Rural High-Cost Universal Service Support (December 14, 2004) at 15.

³¹ See *In the Matter of Unbundled Access to Network Elements*, WC Docket No. 04-313, NASUCA Comments (October 4, 2004) at 17-20.

³² If the support currently received is imputed in these wire centers, their rates would, in fact, be even less reasonably comparable.

annual cycle.³³

A. DETERMINING REASONABLY COMPARABLE RATES AND COSTS.

Determining benchmarks for reasonably comparable rates will be done by the Commission, with the considerations described in Section VII of NASUCA *NRHC Remand* Comments. The task will need to be done at the inception of the process and then again periodically, possibly annually.

In Step Six, below, support levels are calculated by a comparison of statewide costs to national average urban costs. The Commission will also have to determine a benchmark for urban costs.

As discussed above, the Commission could adjust these benchmarks in order to meet the goal of § 254 that universal service be “advanced.” This could be done by 1) narrowing the gap between rural rates and urban rates; 2) expanding the definition of rural territory where rates are supported; and/or 3) increasing the level of costs that are supported.

B. INITIAL REVIEW: IDENTIFYING RURAL RATES THAT ARE NOT CURRENTLY SUPPORTED BUT ARE NOT REASONABLY COMPARABLE.

The most urgent priority is to bring support to rural areas that currently have rates that are not reasonably comparable to urban rates but currently receive no support. These can be identified from the data in Appendix F. These wire centers will take first priority in the determination of levels of support in Step Six.

³³ During the first iteration, it would be possible to establish a (large) group of wire centers that are not eligible for support that would not have to be reviewed in subsequent years, absent changes in the rates. These wire centers would also be covered by the required state certifications, and states would always have recourse to the backstop mechanism to plead the need for support.

C. INITIAL REVIEW: ASSESSING THE LEVEL OF SUPPORTED RATES IF SUPPORT WERE REMOVED.

As discussed in many sub-contexts above, the current high-cost support mechanisms (HCM, IAS and ICL) have little relationship to rates, and cannot be shown to cause rural rates to be reasonably comparable. Thus an early challenge in resolving non-rural high-cost support issues is to determine -- as best as possible -- the impact of the current level of support on rates. This would initially be done as part of a transition, in order to determine subsets of wire centers for prioritization in the initial round of the process. It would also need to be done on an ongoing basis.

NASUCA proposes that this be done by applying (or, rather, “imputing”) support on a per-line basis in non-rural carriers’ rural wire centers. In the initial iteration, the Commission should start with wire centers that contain no more than 20% urban territory.³⁴

The first piece of current support is HCM. For some wire centers, HCM is significant; for others it is not. HCM support is reported on a per-line per-wire center basis in USAC Appendix HC15. This is where the process of “imputing” current high-cost support to rural rates can begin.

IAS, on the other hand, is available in wire centers and to companies that do not receive HCM support. It is allocated by the ILEC’s unbundled network element zones (again, without direct connection to cost of service), but the wire centers in each zone can be identified. This support is reported on a per-line per zone basis in USAC Appendix

³⁴ Whether or not the Commission progresses to “less rural” definitions of rural, to the extent that there is IAS or ICL that goes to wire centers that do not meet this definition, it would likely be phased out.

HC13. Looking at the data in Appendix D **Error! Reference source not found.**, however, there are a few states where IAS contributes significantly to overall funding.³⁵

ICL is the only form of high-cost support received by those few states and non-rural companies that receive it.³⁶ For some of the companies, ICL is significant. ICL funding is reported on a per-line basis in USAC Appendix HC10.

Appendix F2 lists, by state, the rural wire centers (again, defined as 0% to 20% urban using Census Bureau criteria) that currently receive HCM, IAS or ICL funding, their rates, their per-line support, and the impact of imputing the federal support to the rates.³⁷ Appendix F1 explains the data contained in Appendix F1.

Specific examples might be helpful. In Mississippi, the DNCNMSMA wire center has \$95.17 per month in HCM support targeted to it, and receives \$4.72 in IAS. Combined with the \$20.55 rate plus SLC, this implies that the rate would be \$120.44 without support, above most likely benchmarks. On the other hand, the BSLSMSMA wire center in Mississippi receives \$0.10 in HCM support. Imputed to the \$22.27 rate plus SLC, this would be a \$22.37 rate, likely under any reasonable comparability benchmark.³⁸ (This does not, of course, include the impact of local calling areas.)

³⁵ The most substantial impact appears to be in Alabama, Kentucky, Nebraska, West Virginia and Wyoming.

³⁶ See footnote 75. As discussed above, Puerto Rico is excluded from this analysis.

³⁷ As with the non-rural carrier rate dataset, given the volume of the data and the time allotted to prepare this review, there are a few gaps in the data. Here again, NASUCA intends to present the Commission with the complete dataset when it is complete. At this point, there are questions about the rates charged in 35 of the almost 600 rural wire centers that receive support that are included in Appendix F.

³⁸ As discussed in Step Five, since actual support will be based on cost, if a wire center has high rates but low costs it will not receive support under the combined model. Any support for such wire centers will be the responsibility of the states, given that those rates are not based on costs.

Notably, however, in 1999 Mississippi received \$4 million in high cost support. In 2005, that number had increased to \$35 million. It is difficult to see how the support, **much less the increase in support**, had any actual effect on the rates.

Overall, after the substantial tasks of gathering the rate data, determining support on a wire center basis, and combining the two, there has been little opportunity to systematically assess the results of this imputation. One thing is clear, however: **There is no connection between the level of support received by a rural wire center and the rate charged in that wire center.** This is true of HCM support looked at separately, and of IAS/ICL separately³⁹; it is also true of combined total support (HCM plus IAS/ICL). The *Qwest I* court would have approved of the Commission's support mechanism if such a connection had been shown, and the *Qwest II* court agreed, but found that the Commission had not made empirical findings in that regard.⁴⁰ Unfortunately, the evidence shows that the Commission could not make such empirical findings.

On the other hand, there are 1660 rural wire centers that receive less than \$2.00 per month in support. It is hard to see how losing this support would result in rates in those wire centers that were no longer reasonably comparable.⁴¹

D. STEP ONE: COMPARING RURAL RATES TO THE NATIONAL URBAN AVERAGE RATE

On the initial run-through, priority for this step would be taken as follows:

- 1) Wire centers that have rates above the benchmark but currently receive no support.

³⁹ Not surprising, because neither IAS nor ICL were designed to have an impact on rates.

⁴⁰ *Qwest II*, 398 F.3d at 1237, referring to *Qwest I*, 258 F.3d at 1202.

⁴¹ The state mechanism described below would be available for those states.

- 2) Wire centers that currently receive support but still have rates above the benchmark.
- 3) Wire centers where imputing support yields rates above the benchmark.
- 4) Wire centers where imputing support yields rates below the benchmark.

The remaining wire centers (that get no current support and have rates below the benchmark) will be addressed last. This step will also be undertaken on a periodic basis.

The first need in ensuring support sufficient to create rural rates reasonably comparable to urban rates is to compare a specific rural rate to the urban rate benchmark. A wire center where the rural rate was greater than the urban benchmark would “pass on” to Step Four of the process. Wire centers that have rates lower than the benchmark could pass on to Step Two for consideration of the local calling area.⁴²

As previously discussed, the Tenth Circuit required the Commission’s support mechanism for non-rural carriers to both preserve *and advance* universal service, as the statute directs.⁴³ As noted above, NASUCA’s second proposal could advance universal service in two ways: First, by lowering the range of reasonable comparability -- that is, lowering the benchmark -- on an annual basis. For example, if the benchmark were set at 6% above the urban maximum, the 6% would be used in the first year. In the second, the benchmark could be lowered to 5% above the maximum, and so on.

⁴² Alternatively, in this step of the process, a state could resort directly to the backstop state support mechanism described in Section XII.H., below, if the local calling area analysis were not attractive.

⁴³ *Qwest II*, 398 F.3d at 1236.

Under NASUCA's proposal, universal service could also be advanced by gradually expanding the definition of "rural." To begin with, only wire centers that are 0% urban would have their rates considered for eligibility for high-cost support. In subsequent years, "rural" areas could include those with up to 20% urban territory.⁴⁴

It should be noted that these moves to advance universal service should be sufficient to ameliorate any risk that the initial benchmarks might be deemed to be arbitrary. This is especially true because the end result will be to have rural rates that are within the range of urban rates, as they are now overall.

E. STEPS TWO AND THREE: CONSIDER LOCAL CALLING AREAS

Up to this point, the process has focused only on local service rates. It did not consider the true cost of service in rural areas that is reasonably comparable to the cost urban service, that is, the cost of having a reasonably comparable local calling area. As discussed in Section VIII., above, the costs of establishing a reasonably comparable local calling area will vary tremendously, depending on how the local calling area is defined. Whether it is described numerically -- in terms of other access lines reachable with a local call -- or functionally -- in terms of neighboring exchanges, county seats and nearby metropolitan areas reachable with a local call -- it is clear, however, that establishing a comparable local calling area typically increases the cost of local service.

NASUCA proposes that wire centers that "pass" Step One, i.e., that have basic local rates that are reasonably comparable to the weighted urban average, should also have their local calling areas reviewed. As discussed in Section 0. above, however,

⁴⁴ This would add another almost 4000 wire centers to the eligibility list. It is not clear if a subsequent move to include wire centers with up to 40% urban territory would go beyond the range of "rural" wire centers that should be supported.

consideration of local calling areas could add 35% to the customer's payment for "local" service. Step Two would add the local calling area factor; Step Three would compare the combined rate to the benchmark. A wire center where the combined rate exceeded the benchmark would move to Step Four.

Rural wire centers where rates remain reasonably comparable even after adding consideration of the cost of local calling areas do not appear to need support to keep their rates at those levels. Under NASUCA's proposal, however, a state may request consideration for additional support.⁴⁵

F. STEP FOUR: CONSIDER THE STATE URBAN AVERAGE RATE

There may be states that have high rural rates but also have relatively high urban rates, as a result of state-specific regulatory decisions. Such urban rates may not be based on the costs of urban service, which appears to be uniformly low nationwide.

In such an instance, the state has made the decision to narrow the gap between urban and rural rates. Citizens of other states should not be required to support those rural rates and further narrow the gap.

Rates in each wire center that passes to this step should be compared to the statewide urban average rate.⁴⁶ Only wire centers that exceed the statewide average by an amount to be determined by the Commission should progress to Step Five.⁴⁷

⁴⁵ See Section J.

⁴⁶ Wire centers that had local calling areas considered should retain the local calling area adder when being compared to the national benchmark should have the adder included at this step as well.

⁴⁷ Those that do not may still be eligible for support under the backstop mechanism.

G. STEP FIVE: COMPARING STATEWIDE AVERAGE COST TO THE NATIONAL AVERAGE URBAN COST

Rural wire centers that reach this step will have rates that are not reasonably comparable to urban rates. At this point, NASUCA's second alternative proposal temporarily moves away from consideration of rates. The actual amount of support received by a specific wire center would be calculated based on a comparison of statewide average forward-looking costs to a national urban cost benchmark, like what is done in the current non-rural high-cost mechanism.⁴⁸

To the extent that this step eliminates IAS or ICL currently received by a wire center, it would be because those mechanisms were not focused on rural areas. This step should not eliminate any current HCM support, unless it was awarded in a state that had no rates above the benchmark even with imputation and the use of a local calling area adder.

Costs are determined according to the Commission's HCM. NASUCA must note that as previously discussed, the HCM itself is badly in need of updating and upgrading. Making improvements to the model should be a priority of the Commission regardless of the context in which the model is used. As also previously noted, the model should focus on national urban costs rather than national urban, suburban and rural costs combined as is done now.

As indicated in Section XIII.D., review of wire centers would be prioritized. Likewise in this step, the same priority would be observed. Thus wire centers that have rates above the benchmark but currently receive no support would be accumulated for

⁴⁸ The current mechanism, of course, compares the statewide average cost to the national overall average cost, not the national urban average cost.

each state and looked at first; wire centers that currently receive support but still have rates above the benchmark would be looked at by state next, and so on, until wire centers that get no current support and have rates below the benchmark can be addressed last.

Having had support calculated based on costs, the carrier will move on to Step Six. If a wire center does not qualify for support based on costs -- as many in the nation currently do not -- its state may nonetheless apply for support under the backstop mechanism.

H. STEPS SIX AND SEVEN: COMPARE CURRENT RATE MINUS PER-LINE SUPPORT TO THE BENCHMARK RATE

The Tenth Circuit required the Commission to demonstrate that its support mechanism based on costs would actually produce reasonably comparable rates.⁴⁹ In this step, NASUCA's proposal does just that.

The total amount of support based on costs for each wire center would be divided by the number of lines in that wire center.⁵⁰ That per-line support would be "deducted" from the basic service rate for each wire center to determine what the rate would be if the support were applied.

If the resulting rate is below the reasonable comparability benchmark, then the process is essentially over.⁵¹ The federal fund will have provided enough support to allow rates that were not reasonably comparable to become reasonably comparable. It would be up to each state to ensure that the support is actually used to lower rates in the

⁴⁹ *Qwest I*, 258 F.3d at 1202.

⁵⁰ Here the distinction would need to be made between residential and business access lines. Support focused on residential rates would be divided by the number of residential lines; support focused on business rates would be divided by the number of business lines. NASUCA's focus here is on residential rates.

⁵¹ If the rate still remains above the reasonable comparability benchmark, then the state will have to resort to the backstop mechanism for additional support.

high-cost wire centers; a certification that this has resulted should be part of the annual state certification required by the Commission.⁵² Alternatively, the Commission could simply directly require that this high-cost support -- specifically designed to produce reasonably comparable rural rates -- is actually and immediately used for that purpose.

I. IS A PHASE-IN (OR PHASE-OUT) NEEDED?

As with the first proposed alternative, NASUCA is unable to predict at this point the precise effect the second alternative will have on the high-cost funding received by the various states.⁵³ What is certain, however, is that support levels will change; some carriers in some states will be entitled to more funding than the current mechanism provides, and other carriers will be entitled to less funding than they currently receive. This is especially true with regard to carriers that receive IAS and ICL, which have nothing to do with rates and very little to do with the carriers' costs.

In order to prevent disruption for any carrier or its consumers -- and in the interests of gradualism as discussed in Section 0 -- NASUCA proposes that if current support levels per carrier per state vary from support levels based on the process set forth here by more than 20% (either higher or lower), a three-year transition to the new rate be allowed.

J. THE BACKSTOP MECHANISM FOR STATES

In the *Order on Remand*, the Commission adopted a mechanism to allow states to apply for "additional targeted federal support."⁵⁴ The existence of such a mechanism is a

⁵² See *Order on Remand*, ¶ 89.

⁵³ See Appendix D, for the current high-cost funding situation.

⁵⁴ *Order on Remand*, ¶¶ 93-96.

fundamental part of NASUCA’s second alternative proposal, capable of being invoked by a state at any point in the process.

This backstop mechanism for the states will continue to be “based on a showing that federal and state action together are not sufficient to achieve reasonable comparability of basic service rates in rural, high-cost areas served by non-rural carriers within the state to urban rates nationwide.”⁵⁵ Further, it would be required that

any request for further federal action fully explain the basis of the request, including a demonstration that the state’s rural rates are not reasonably comparable to urban rates nationwide and that the state has taken all reasonably possible steps to achieve reasonable comparability through state action and existing federal support.⁵⁶

Further, the burden should still “fall on the state to demonstrate the reasons underlying the failure to achieve reasonable comparability, because only the state is in a position to identify the existence and sources of problems that may be unique to that state.”⁵⁷

⁵⁵ Id., ¶ 93. The Commission also suggested that it could “modify calling scopes or improve quality of service where state commissions have limited jurisdiction.” Id. It is not clear that the Commission would have jurisdiction to do either; granting additional federal support is unquestionably within the Commission’s jurisdiction.

⁵⁶ Id.

⁵⁷ Id., ¶ 96.

APPENDIX C

NASUCA’S MECHANISMS SHOULD PRODUCE REASONABLY COMPARABLE RATES, SHOULD “PRESERVE” AND “ADVANCE” UNIVERSAL SERVICE, AND SHOULD YIELD A “SUFFICIENT” NON-RURAL HIGH-COST FUND.

The purpose of NASUCA’s proposals is to meet the statute. NASUCA’s first alternative proposal does so by establishing a rational national benchmark against which rural costs can be compared, in order to determine that rural rates are at realistic risk of not being reasonably comparable. By simplifying the process, and by recognizing the increasing use of the network for unsupported services, NASUCA’s first alternative both preserves and advances universal service. And by supporting rural costs where the rates are at risk for becoming not reasonably comparable, the proposal should yield a fund that is sufficient to meet its purposes.

NASUCA’s second alternative proposal meets the statute in different ways. It is intended to achieve reasonably comparable rates in rural areas by examining those rates, and providing support directly to areas where the rates are not reasonably comparable and costs are high.⁵⁸ Thus NASUCA’s proposal will not allow a “significant variance between rural and urban rates [to] continue unabated.”⁵⁹ In addition, NASUCA’s second mechanism will phase out current support that is not necessary to produce reasonably comparable rates, i.e., where if the support were removed the rates would still be reasonably comparable. Thus NASUCA’s proposal meets the objectives of 47 U.S.C. §

⁵⁸ The backstop mechanism is available all throughout NASUCA’s process, but especially at the end where, if cost-based support does not prove sufficient to produce reasonably comparable rates, a state may apply to the Commission for additional support that will achieve that end.

⁵⁹ *Qwest II*, 398 F.3d at 1236.

254(b)(3). As discussed in Section 0., above, “reasonable comparability” is the key goal for the high-cost universal service support mechanism.

NASUCA’s second proposal will also “advance” universal service, as the statute requires.⁶⁰ This is done by gradually narrowing the range of reasonable comparability, such that as time goes by, support will be given to rural rates that are less divergent from the urban average than at the beginning.⁶¹ It would also be done by broadening the definition of rural areas eligible for support.

Finally, NASUCA’s second alternative proposal will also be “sufficient,” as required by 47 U.S.C. § 254(e). *Qwest II* reversed the Commission’s prior definition of sufficiency first, because it failed to consider all of the § 254(b) principles⁶²; second, because even under the Commission’s inadequately-considered focus on reasonable comparability, the Commission was unable to show that its support mechanism produced the desired results⁶³; and third, as just discussed, because the Commission did not assert that its mechanism advanced universal service.⁶⁴ Considering all the principles, both of NASUCA’s proposed mechanisms will demonstrably result in reasonably comparable rates, and that universal service goal will be advanced through the process. Under these

⁶⁰ See *id.* at 1235-1236.

⁶¹ The *Qwest II* court noted that “preserve” and “advance” must be applied to the same aspects of universal service, rather than preserving one aspect (i.e., rates) while advancing another (i.e., technology). *Id.* at 1236. NASUCA’s high-cost proposal applies both to rates. As discussed in Section 0. next, however, NASUCA also has proposals for advancing universal service in other directions.

⁶² *Id.* at 1234.

⁶³ *Id.* at 1237.

⁶⁴ *Id.* at 1235-1236.

terms, the mechanisms will be sufficient for the purposes of the statute.⁶⁵

APPENDIX D

THE NON-RURAL CARRIER HIGH-COST FUNDING SITUATION⁶⁶

Support for non-rural carriers comes principally from two sources: (1) the high-cost model support mechanism, and (2) the interstate access support mechanism. These mechanisms amounted to \$1.3 billion in 2007, including CETC support.⁶⁷ There are a small number of rate-of-return non-rural carriers that receive Interstate Common Line Support, as described below, rather than Interstate Access Support.

- *High-cost model support* (“HCM”) is based on the following:
 1. The total unseparated costs of serving each exchange of each non-rural incumbent are estimated by the FCC’s Hybrid Cost Proxy Model.
 2. These exchange costs are aggregated and divided by the total number of lines served by the incumbent non-rural carrier.
 3. If there is more than one non-rural incumbent within a state, the costs of the non-rural carriers within the state are averaged together.
 4. The average cost per line of each state is compared to a national cost benchmark, which currently is \$28.13 per month.⁶⁸ Those states with costs in excess of the benchmark are eligible for high-cost model support.
 5. The amount of support for each state is based on 76% of the dollar amount above the benchmark times the number of lines served.
 6. In states with more than one non-rural incumbent, support is allocated among carriers based on an FCC algorithm.

⁶⁵ NASUCA’s review of areas currently receiving support in order to determine whether that support is needed to produce reasonably comparable rates will also ensure that the support is no more than sufficient. The *Qwest II* court did not object to the Commission’s determination that support should be at levels only as large as necessary. *Id.* at 1234. Likewise, the dependence on state mechanisms discussed in Section 0. will help to ensure that the federal fund is no larger than necessary.

⁶⁶ The description of the funds is adapted from NASUCA’s 2008 RD Comments at 24-29; the review of 2005 non-rural high-cost funding is adapted from NASUCA’s NRHC Remand Comments at 15-19.

⁶⁷ USAC 2007 Annual Report at 44.

⁶⁸ The current benchmark amounts to 131% of the national average cost produced by the model.

HCM amounted to \$346 million in 2007, of which a substantial amount went to CETCs.⁶⁹

- *Interstate access support* (“IAS”) is based on the following:
 1. Each price cap carrier reports its total embedded costs for interstate common line, marketing and transport (“CMT”) expenses.
 2. These costs are compared to the revenues produced by the carrier’s subscriber line charge (“SLC”) imposed on end users. If the carrier is not able to recover all of its CMT costs with a SLC at or below the current SLC cap (\$6.50 for single-line residential customers), then the carrier is eligible to receive IAS for the amount of CMT costs in excess of the cap.
 3. The Universal Service Administrative Company (“USAC”) aggregates all claims for interstate access support, from both incumbents and CETCs. If the claims exceed the target of \$162.5 million per quarter (\$650 million per year), then an FCC algorithm is used to prorate support among the carriers.

IAS amounted to \$645 million in 2007; again a substantial amount went to CETCs.⁷⁰

- *Interstate common line support* (“ICL”) is based on the following:
 1. Similar to IAS, ICL allows rate-of-return carriers to recover the portion of their interstate common line revenue requirement not recovered through subscriber line charges.
 2. The interstate common line revenue requirement is based on the embedded interstate CMT.
 3. Even though ICL, like HCL, is based primarily on loop costs, there is no cap on the size of the ICL fund.

ICL was \$1.392 billion (for both rural and non-rural carriers) in 2007.⁷¹ Again, the CETC share was substantial, but less than for IAS.⁷²

⁶⁹ USAC 2007 Annual Report at 43.

⁷⁰ There are a number of larger rural carriers who are price-cap carriers and receive support under IAS. This amounted to \$147 million in 2007. Rural CETCs received \$11 million in IAS in 2007. (Source: Monitoring Report.)

⁷¹ USAC 2007 Annual Report at 43.

⁷² Four non-rural carriers remain under rate-of-return and receive ICL. This amounted to \$49 million in 2007, 3.5% of the total ICL funding.

Appendix A to NASUCA's *Remand NPRM* comments -- derived from USAC reports and the FCC monitoring report⁷³ -- listed, by state, the non-rural carriers in each state and showed the amount of high-cost support that each carrier received in 2005 and was projected to receive in the first quarter of 2006 ("1Q06"). This high-cost support includes not only HCM support but also the "high-cost" support that was designed to replace access charge revenues -- that is, IAS and ICL -- which has a limited relationship to costs.⁷⁴ Here, NASUCA updates that information to the second quarter of 2009.

Appendix A shows that in 2005, fifteen non-rural companies in ten states received high-cost model funding. On the other hand, non-rural carriers in forty-seven jurisdictions received either interstate access or interstate common line support in 2005, but no HCM support.⁷⁵ In the District of Columbia, Idaho, Minnesota, New Jersey, and Wisconsin, non-rural carriers received no high-cost funding. Further, ten non-rural carriers in eight states received no high-cost funding, even though other non-rural carriers in those states did receive such funding. The states, companies, their total 2005 HCM and other "high-cost" funding, and that funding expressed on per loop per month basis⁷⁶ are:

⁷³ Support amounts are from Monitoring Report Tables 3.25, 3.27, 3.28 and 3.30. Line counts are from Monitoring Report Table 3.31.

⁷⁴ The *CALLS* universal service support was supposed to have lasted five years (*CALLS Order*, ¶ 198). The five years ended July 1, 2005. The *MAG Order* had no end date for its universal service support.

⁷⁵ Of the non-rural ILECs, only ACS in Alaska, SureWest in California, North State in North Carolina, and the Puerto Rico companies received ICL support in 2005.

⁷⁶ In this chart, intended only to give a gauge on the current situation, funding is spread across all of the non-rural carrier's line within the state. Not all of these lines are rural, of course. In Section XIII., below, NASUCA imputes this current support to the non-rural ILECs' rural wire centers that receive support.

State	Non-rural carrier(s)	2005 HCM support (\$ millions)	2005 IAS/ICL support (\$ millions)	2005 total support (\$ millions)⁷⁷	Total support / loop / month
Alabama	South Central Bell	25.2	9.9	35.1	\$1.65
	CenturyTel (Southern)	5.4	4.0	9.4	\$5.14
	CenturyTel (Northern)	8.7	2.0	10.7	\$7.23
Alaska	ACS of Anchorage	0	4.6	4.6	\$2.53
Arizona	Qwest	0	12.7	12.7	\$0.45
Arkansas	Southwestern Bell	0	5.5	5.5	\$0.50
California	Verizon (Contel)	0	5.9	5.9	\$1.20
	Verizon (GTE)	0	18.9	18.9	\$0.40
	SureWest	0	3.7	3.7	\$2.38
	Pacific Bell	0	0	0	0
Colorado	Qwest	0	20.2	20.2	\$0.68
Connecticut	SNET	0	0.5	0.5	\$0.02
DC	Verizon	0	0	0	0
Delaware	Verizon	0	0.3	0.3	\$0.04
Florida	Verizon	0	28.1	28.1	\$1.10
	Southern Bell	0	10.2	10.2	\$0.14
Georgia	Southern Bell	0	15.8	15.8	\$0.35
Hawaii	Verizon	0	6.8	6.8	\$0.28
Idaho	Qwest	0	0	0	0
Iowa	Qwest	0	0.6	0.6	\$0.05
Illinois	Verizon	0	6.8	6.8	\$0.93
	Verizon (Contel)	0	3.9	3.9	\$2.60
	Illinois Bell	0	0	0	0

⁷⁷ Totals may not be exact due to rounding.

State	Non-rural carrier(s)	2005 HCM support (\$ millions)	2005 IAS/ICL support (\$ millions)	2005 total support (\$ millions)	Total support / loop / month
Indiana	Verizon	0	15.7	15.7	\$1.80
	Verizon (Contel)	0	5.3	5.3	\$2.28
	Indiana Bell	0	0	0	0
Kansas	Southwestern Bell	0	9.6	9.6	\$0.39
Kentucky	Cincinnati Bell	0.7	0.2	1.0	\$0.39
	South Central Bell	10.4	6.8	17.2	\$1.31
	ALLTEL	5.7	9.0	14.7	\$2.95
Louisiana	South Central Bell	0	9.6	9.6	\$0.39
Maine	Verizon	1.8	0.3	2.1	\$0.27
Massachusetts	Verizon	0	1.9	1.9	\$0.04
Maryland	Verizon	0	2.3	2.3	\$0.05
Michigan	Verizon	0	0.4	0.4	\$0.04
	Michigan Bell	0	0	0	0
Minnesota	Qwest	0	0	0	0
Mississippi	South Central Bell	99.7	14.0	113.7	\$7.69
Missouri	Southwestern Bell	0	3.5	3.5	\$0.12
	CenturyTel (Central)	0	0.8	0.8	\$0.76
	CenturyTel (Southwest)	0	2.9	2.9	\$1.10
Montana	Qwest	15.9	0.8	16.7	\$4.19
Nebraska	ALLTEL ⁷⁸	3.9	0	3.9	\$1.21
	Qwest	2.8	3.0	5.8	\$1.31
North Carolina	Verizon	0	7.5	7.5	\$3.34
	North State	0	4.9	4.9	\$3.40
	Verizon (Contel)	0	5.0	5.0	\$2.92
	Southern Bell	0	10.0	10.0	\$0.37
North Dakota	Qwest	0	0.5	0.5	\$0.22
Nevada	Central	0	1.5	1.5	\$0.15
	Nevada Bell	0	3.9	3.0	\$0.88

⁷⁸ ALLTEL in Nevada is the only carrier to receive only HCM support and no access support.

State	Non-rural carrier(s)	2005 HCM support (\$ millions)	2005 IAS/ICL support (\$ millions)	2005 total support (\$ millions)	Total support / loop / month
New Hampshire	Verizon	0	1.9	1.9	\$0.22
New Jersey	Verizon	0	0	0	0
New Mexico	Qwest	0	4.2	4.2	\$0.44
New York	Verizon	0	8.4	8.4	\$0.07
	Frontier Rochester	0	0	0	0
Ohio	Verizon	0	8.1	8.1	\$0.76
	Cincinnati Bell	0	0	0	0
	Ohio Bell	0	0	0	0
Oklahoma	Southwestern Bell	0	3.8	3.8	\$0.23
Oregon	Verizon	0	13.9	13.9	\$2.71
	Qwest	0	2.6	2.6	\$0.17
Pennsylvania	Verizon North	0	3.4	3.4	\$0.53
	Verizon	0	0	0	0
Puerto Rico	PRTC Central	0	9.0	9.0	\$4.56
	PRTC	0	58.2	58.2	\$4.78
Rhode Island	Verizon		0.06	0.06	\$0.01
South Carolina	Verizon	0	6.0	6.0	\$3.01
	Southern Bell		5.2	5.2	\$0.32
South Dakota	Qwest	1.5	0.1	1.6	\$0.67
Tennessee	South Central Bell	0	7.3	7.3	\$0.25
Texas	GTE	0	19.2	19.2	\$1.12
	Contel	0	3.3	3.3	\$2.38
	Southwestern Bell	0	0	0	0
Utah	Qwest	0	1.1	1.1	\$1.16
Vermont	Verizon	8.3	2.0	10.3	\$2.50
Virginia	Contel	0	38.2	38.2	\$5.32
	Verizon	0	11.6	11.6	\$0.31
Washington	Verizon	0	15.9	15.9	\$1.81
	Contel	0	4.9	4.9	\$4.53
	Qwest	0	0	0	0
West Virginia	Verizon	22.6	8.0	30.6	\$3.15

State	Non-rural carrier(s)	2005 HCM support (\$ millions)	2005 IAS/ICL support (\$ millions)	2005 total support (\$ millions)	Total support / loop / month
Wisconsin	Verizon	0	0	0	0
	Wisconsin Bell	0	0	0	0
Wyoming	Qwest	9.4	5.2	14.6	\$5.10

Appendix B to NASUCA's *NRHC Remand* Comments showed this information ranked according to the amount of support received by each ILEC in each state. In total in 2005, there was \$222 million in HCM funding, \$427 million in IAS funding for non-rural carriers, and \$81 million in ICL funding for non-rural carriers, for a total of \$730 million.⁷⁹

Under the Commission's current non-rural mechanism, then, these carriers receive a total of \$730 million in funds paid by consumers without any actual requirement to show that the funds result in reasonably comparable rates or -- conversely -- that without the funds rates would no longer be reasonably comparable. (The currently-required state certifications⁸⁰ that follow the determination of support under the current mechanism do little to provide this assurance.) The mechanism must be fixed so that the statutory connection is made.

⁷⁹ To put this into perspective, in the first quarter of 2006 rural carriers received three times as much in high-cost funding. USAC 1Q06 Appx. HC01.

⁸⁰ *Order on Remand*, ¶ 89.

APPENDIX E

THE DATA ON URBAN AND RURAL RATES OF NON-RURAL CARRIERS

In the *Remand NPRM*, the Commission invited commenters to submit rate data.⁸¹ NASUCA did so, comprehensively, in Appendix C to its remand comments.⁸² This data has not been updated, but remains relevant for the Commission's resolution of the *Qwest II* remand. The remainder of this Appendix repeats the discussion from NASUCA's remand comments with a few updates.

The first piece of the puzzle in comparing urban and rural rates is to define "urban" and "rural." The second piece is defining "rates."

In determining high-cost funding, the Commission currently looks at only part of the national picture: The current rate benchmark is based on an annual survey of rates in 95 "urban" areas, as reported in the annual *Reference Book of Rates, Price Indices, and Household Expenditures* ("*Reference Book*").⁸³ The most recent result of the survey (rates as of October 15, 2007) is a weighted average monthly urban residential charge of \$25.62,⁸⁴ with a low of \$16.70 and a high of \$38.59.⁸⁵ "Rates," as evaluated in that

⁸¹ NPRM, ¶ 18.

⁸² See http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518332042 and http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518348416. The first link is to a description of the file; the second link is to the revised and corrected version that was filed with NASUCA's reply comments. These are pdf files; the Excel spreadsheets were provided to FCC staff and will be provided to any party on request.

⁸³ *Order on Remand*, ¶ 80.

⁸⁴ *Reference Book*, Table 1.13.

⁸⁵ *Id.*, Table 1.3. In the NPRM comments, NASUCA reported that rates as of October 15, 2004 showed a weighted average monthly urban residential charge of \$24.31, with a low of \$16.05 and a high of \$34.47. This represents a 5.4% increase in the weighted average, a 4% increase in the lowest rate and a 12% increase in the highest rate. This indicates that the range of urban rates is broadening, particularly on the high end.

survey, include the monthly rate for residential flat-rate service; federal and state SLCs; the federal USF (“FUSF”) assessments on the SLCs; and taxes, 911 and other charges, assessed by the ILEC.⁸⁶

For its initial rate comparison, NASUCA adopted a somewhat more limited definition, that included the monthly rate for residential flat-rate service, the SLC, and the FUSF assessment on the SLC.⁸⁷ Charges for 9-1-1, taxes and other surcharges do not appear to be available on a wire center basis. On a national level, however, these represent an average of \$3.97 per month.⁸⁸ This should not significantly impact the results, given that NASUCA’s rate comparison is apples-to-apples, rate-plus-SLC-plus-FUSF to rate-plus-SLC-plus-FUSF.⁸⁹

As to the urban/rural distinction, it is important to recognize how the terms are used by the Commission *in the context of the non-rural high-cost fund*. The Commission’s rules define “rural areas” in this context, but only as a consideration for the states.⁹⁰ NASUCA submits that the definition is inadequate for this purpose.

⁸⁶ Id., Table 1.1. NASUCA’s proposal focuses on residential service, and provides support for residential rates.

⁸⁷ The sources for the rate numbers are found in Appendix C. It should be noted that for some states -- Vermont, Connecticut and Pennsylvania in particular -- some assumptions were made in assigning rates to wire centers. Even in the state-specific analysis, changing the assumption would not have a significant impact. Further, given that Puerto Rico is seeking its own insular high-cost mechanism, it is not included in this national data. It must be noted at this point that, given the volume of the data and the time allotted to prepare this review, there are a few gaps in the data. NASUCA intends to present the Commission with the complete dataset when it is complete.

⁸⁸ *Reference Book*, Table 1.2.

⁸⁹ In addition, many of the taxes and surcharges are state-specific, and should be supported through state -- not national -- efforts. In Richmond, Virginia, for example, state taxes total \$6.89 and the 9-1-1 charge is \$3.00, both substantially higher than such charges elsewhere. See http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/ratesrvy03-04.zip.

⁹⁰ 47 C.F.R. § 316(c); see also 47 C.F.R. §§ 54.5, 54.316(c), and 54.505(b)(3)(ii), which contain more detailed definitions.

By contrast, the Commission’s definition of “urban” is encompassed by the 95 “urban” areas used for the FCC’s determination of the national average urban rate. The 95 areas were a sample used by the Bureau of Labor Statistics (“BLS”) in the calculation of the consumer price index in 1986.⁹¹ This “definition” also has its limitations.

NASUCA submits that the Commission should follow the U.S. Census Bureau definitions. The Census Bureau defines “urban” as follows:

Urban - All territory, population and housing units in urban areas, which include urbanized areas and urban clusters. An urban area generally consists of a large central place and adjacent densely settled census blocks that together have a total population of at least 2,500 for urban clusters, or at least 50,000 for urbanized areas. Urban classification cuts across other hierarchies and can be in metropolitan or non-metropolitan areas.⁹²

Rural is defined by the Census Bureau in the negative, being “territory, population and housing units not classified as urban.”⁹³

The distinction between urban and rural is also discussed on the website of the Economic Research Service (“ERS”) of the U.S. Department of Agriculture:

According to official U.S. Census Bureau definitions, rural areas comprise open country and settlements with fewer than 2,500 residents. Urban areas comprise larger places and densely settled areas around them. Urban areas do not necessarily follow municipal boundaries. They are essentially densely settled territory as it might appear from the air. Most counties, whether metropolitan or non-metropolitan, contain a combination of urban and rural populations.

⁹¹ *Reference Book*, page I-2. It is not clear whether these 95 urban areas selected in 1986 remain the best sampling some twenty years later, but that does not appear to make much difference.

⁹² http://ask.census.gov/cgi-bin/askcensus.cfg/php/enduser/std_adp.php?p_faqid=623&p_created=1092150238&p_sid=RK3ozT1i&p_1va=&p_sp=cF9zcmNoPTEmcF9zb3J0X2J5PSZwX2dyaWRzb3J0PSZwX3Jvd19jbnQ9NTEmcF9wcm9kc z0mcF9jYXRzPSZwX3B2PSZwX2N2PSZwX3BhZ2U9MSZwX3NlYXJjaF90ZXh0PXYyYmFuIGRlZmluaXRpb24*&p_li=&p_topview=1 (accessed March 7, 2006).

⁹³ *Id.*

Urban areas are of two types -- **urbanized areas** and **urban clusters** -- identical in the criteria used to delineate them but different in size. The Census Bureau defines an urbanized area wherever it finds an urban nucleus of 50,000 or more people. They may or may not contain any individual cities of 50,000 or more (152 currently do not). In general, they must have a core with a population density of 1,000 persons per square mile and may contain adjoining territory with at least 500 persons per square mile. Urbanized areas have been delineated using the same basic threshold (50,000 population) for each decennial census since 1950, but procedures for delineating the urban fringe are more liberal today. In 2000, 68 percent of Americans lived in 452 urbanized areas.

The same computerized procedures and population density criteria are used to identify urban clusters of at least 2,500 but less than 50,000 persons. This delineation of built-up territory around small towns and cities is new for the 2000 census. In 2000, 11 percent of the U.S. population lived in 3,158 urban clusters.

According to this system, rural areas consist of all territory located outside of urbanized areas and urban clusters. The U.S. rural population was 59 million (21 percent) in 2000.⁹⁴

The key information in the ERS' discussion can be displayed as follows:

	Number	2000 Population	% of Population
Urbanized areas	452	191 million	68%
Urban clusters	3,158	31 million	11%
Rural areas	N/A	59 million	21%
TOTAL		281 million	100%

As used by the Census Bureau and noted by the ERS, areas are either rural or urban, with nothing in between. For our rate comparison purposes here, however, it is possible to recognize “rural” wire centers as those serving no population classified as urban (“0% urban”) and urban wire centers as those serving entirely urban areas (“100% urban”), recognizing that there are many areas that lie between.

This is shown by the wire center data:

⁹⁴ <http://www.ers.usda.gov/Briefing/Rurality/WhatisRural/> (emphasis in original) (accessed February 5, 2006).

Percent of the population living in urban areas	Number of Wire Centers	Average Population	Total population ⁹⁵	Percent of total population ⁹⁶
0%	1,808	2,611	4,721,471	1.8%
0-20%	3,979	3,332	13,259,982	5.1%
20-40%	545	10,295	5,610,606	2.1%
40-60%	1057	12,291	12,991,492	5.0%
60-80%	1,393	16,876	23,507,836	9.0%
80-100%	4,278	48,134	205,915,241	78.8%
100%	1092	58,861	64,275,873	24.6%
Sample avg. (0-100%)	11,252	23,221	261,285,167	100.0%

It is crucial to remember at this juncture that “urban” and “rural” are defined here for very different purposes. “Urban” is used to determine the average urban revenue, in NASUCA’s first proposal, or the urban average rate, in NASUCA’s second proposal. Therefore, it is reasonable to use wire centers that are 100% urban according to the Census Bureau. This does not mean that the rest of the wire centers (some 10,160 of them) are all “rural.” Likewise, “rural” is used here as designating areas that may need support. Using the 0% urban to 20% urban range makes 35% of the wire centers in the country eligible, serving 5.1% of the population. Importantly, this does not make the rest of the wire centers (65%) “urban.”

⁹⁵ Recall that this is the total population served by non-rural carriers and thus does not include the population served by rural carriers.

⁹⁶ The 0 and 100 % urban row values are included in the 0-20% and 80-100% rows, respectively.

Another view would take the 21% rural population of the country and assume that 21% of the nation's 169 million working loops⁹⁷ -- or 35.5 million -- are rural. It is safe to assume that most of the 23.5 million working loops served by rural carriers⁹⁸ are in rural territory. If that is 20 million, then 15.5 million rural lines are served by non-rural carriers.⁹⁹ That would fall into the 20-40% urban quintile in the chart, and mean that 7.2% of the non-rural companies' population is served by these lines.

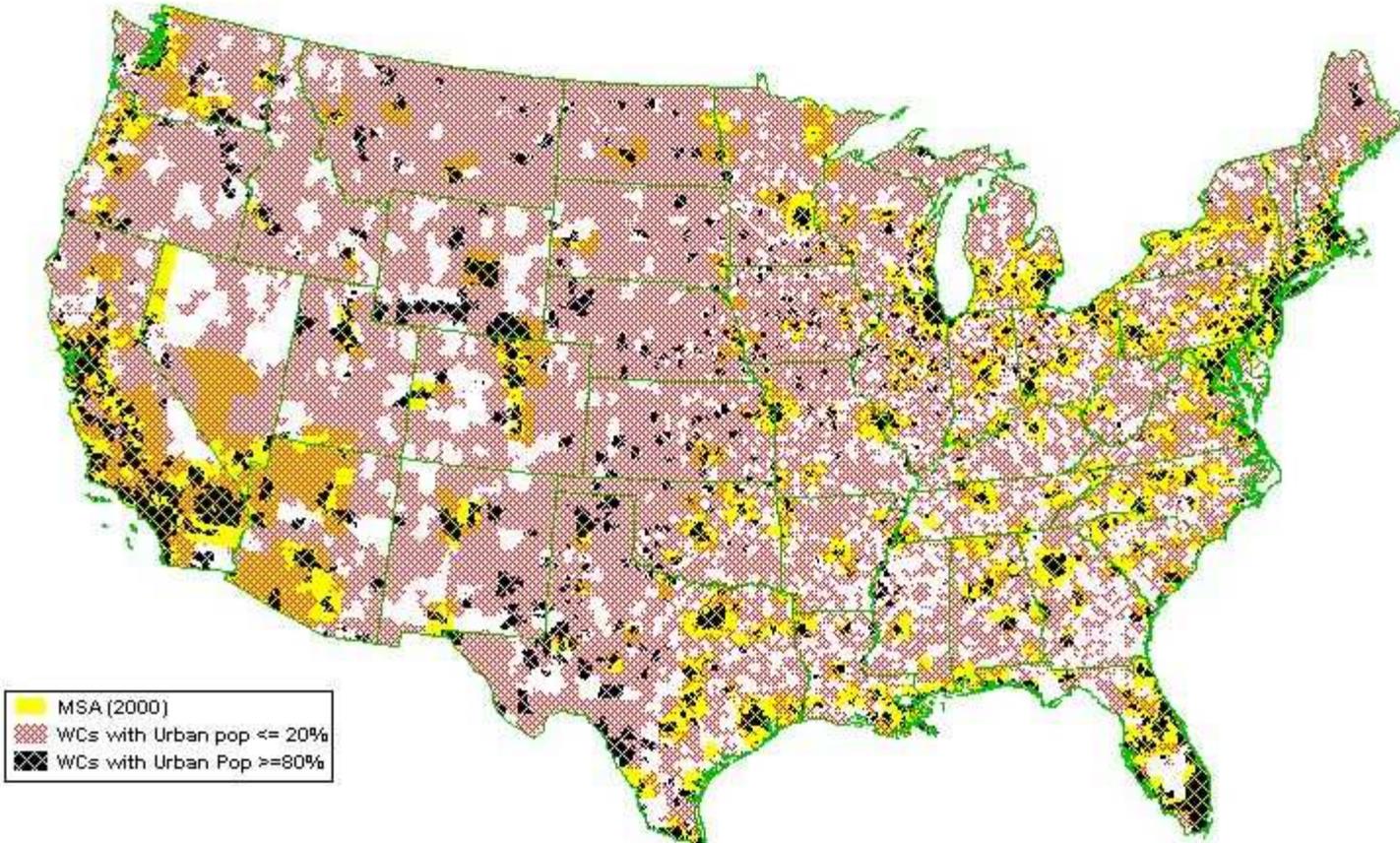
As discussed below, NASUCA's samplings took all the wire centers that are 0% urban, and those that are 100% urban, according to the Census Bureau.¹⁰⁰ NASUCA also sampled wire centers that were up to 20% urban (not entirely rural, but close). NASUCA also looked at wire centers that were more than 80% urban (not entirely urban, but close). The sampling is shown graphically on the maps on the next two pages. The first map shows the territory that is 0-20% urban and the territory that is 80-100% urban. The second map shows the territory that is 0% urban and the territory that is 100% urban.

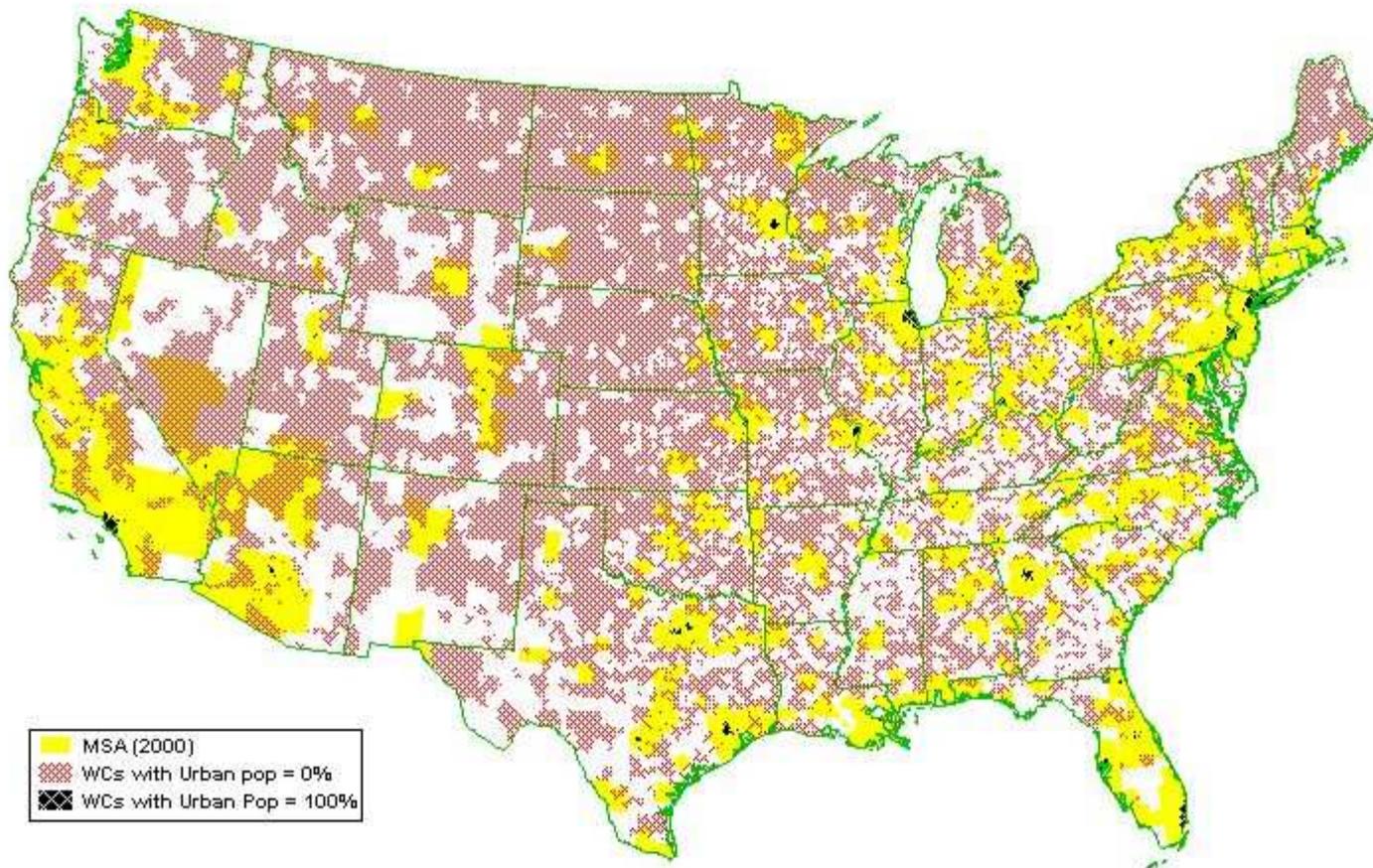
⁹⁷ USAC 1Q06 Appx. HC05.

⁹⁸ Id.

⁹⁹ I.e., $35.5 - 20.0 = 15.5$.

¹⁰⁰ This material was presented in Appendix C of the NASUCA *NRHC Remand* Comments and more extensively discussed in Section VII of the NASUCA *NRHC Remand* Comments.





It should be recalled that these maps use the Census Bureau definitions, which include “urban clusters” (i.e., areas “of at least 2,500 but less than 50,000 persons”¹⁰¹) as urban. The inclusion of “built-up territory around small towns and cities”¹⁰² is the cause of “urbanity” in what may appear to counterintuitive areas.

The data presented by NASUCA -- based on the Census Bureau definitions -- gives the Commission its most complete gathering to date of rates for non-rural carriers. The urban data shows the relative validity of the current 95-urban area sample; given its simplicity and history the Commission may decide to continue using it. As discussed above, the Commission’s sampling yields a weighted average monthly urban residential charge of \$24.31, with a low of \$16.05 and a high of \$34.47. NASUCA’s urban sample has an average of \$19.57, with a low of \$9.29 and a high of \$31.82. With \$3.97 in other fees added in, the average becomes \$23.54, the low \$13.26, and the high \$33.64.

As to rural rates charged by non-rural ILECs, however, NASUCA’s data provides detailed information that the Commission has never examined before. This information is vital to establishing a universal service fund that “preserves and advances” the principle that rural rates should be “reasonably comparable” to urban rates.

¹⁰¹ See footnote 94, *supra*.

¹⁰² *Id.*

APPENDIX F

DISCUSSION OF AT&T'S "MECHANISM FOR AFFORDABLE RURAL COMMUNICATIONS" AND QWEST'S AFFORDABILITY TEST¹⁰³

AT&T admits that its plan would increase the non-rural high-cost fund.¹⁰⁴ Somehow, however, according to AT&T, extending the exclusive focus on affordability to the rural fund would **reduce** that part of the fund.¹⁰⁵ On top of that initial contradiction, there are numerous other fundamental errors in AT&T's proposal.

Although the basic argument that AT&T advances in its affordability discussion seems to be sound -- that the affordability requirements of Section 254 should focus on a determination of "how much consumers can reasonably be expected to spend on telephone service"¹⁰⁶ -- the proposal to tie affordability to the percentage of income spent on telephone service at median income levels presents some insurmountable problems.

Citing a definition from *Merriam-Webster Online Dictionary*, AT&T submits that "any consideration of whether services are 'affordable' to consumers necessarily involves analysis of whether, and to what degree, consumers can bear the costs of service in the face of their financial means, or income."¹⁰⁷ AT&T's definition of "affordability," however, quickly morphs from whether "consumers can bear the costs of service in the face of their financial means" to a test

¹⁰³ This material is adapted from NASUCA's NRHC Remand Reply Comments (at 31-56).

¹⁰⁴ AT&T Comments at 4.

¹⁰⁵ *Id.*

¹⁰⁶ *Id.* at 14, 17.

¹⁰⁷ *Id.* at 14.

based on “what consumers can reasonably be expected to spend on telephone service.”¹⁰⁸ Rather than looking at whether consumers “can bear the costs of service,” AT&T instead purports to establish “an objective measure of a reasonable level of consumer expenditure on local telephone service,”¹⁰⁹ which has little relation to “affordability” as the Commission has defined it.

AT&T’s analysis presents two fundamental problems. First, AT&T fails to establish an objective measure of a reasonable level of consumer expenditures on local telephone service. Second, even if AT&T had succeeded in establishing such an objective measure, the concepts of (1) what costs “consumers can bear,” and (2) what costs consumers “can reasonably be expected to spend” are not the same.

A. *AT&T FAILS TO ESTABLISH AN OBJECTIVE MEASURE OF TELEPHONE EXPENDITURES.*

AT&T fails in its efforts to establish an objective measure of a reasonable level of consumer expenditures on local telephone service. AT&T urges the FCC to rely on data from the Bureau of Labor Statistics (“BLS”) Consumer Expenditures Survey (“CEX”)¹¹⁰ to establish its “affordability benchmark.” AT&T argues that basing the “affordability benchmark” on CEX data involves “an objectively reasonable level of expenditure for local telephone service.”¹¹¹

¹⁰⁸ Id. at 24.

¹⁰⁹ Id. at 23.

¹¹⁰ According to the Bureau of Labor Statistics (“BLS”), “The Consumer Expenditure Survey (CE) program consists of two surveys collected for the Bureau of Labor Statistics by the Census Bureau — the Quarterly Interview Survey and the Diary Survey — that provide information on the buying habits of American consumers, including data on their expenditures, income, and consumer unit (families and single consumers) characteristics.” U.S. Department of Labor, Bureau of Labor Statistics, Consumer Expenditures Survey Home Page, <http://stats.bls.gov/cex> (accessed May 15, 2006).

¹¹¹ Id. at 26.

Moreover, AT&T argues that using household expenditure data is a “straightforward, practicable means” of determining telephone expenditures.¹¹²

AT&T’s comments assume that the “telephone services” expenditures reported in the CEX are only for local telephone service. That assumption is demonstrably in error. The CEX data is not limited to local telephone service. The *Information Book* published by the U.S. Department of Commerce for the Quarterly Interview Survey component of the Consumer Expenditures Survey (April 1, 2004, at 15) reports that “telephone expenses” includes all of the following:

- Residential service;
- Mobile/cellular service;
- Pager/beeper services;
- Basic (local) service charge;
- Domestic long distance charge;
- International long-distance charge;
- Telephone related services such as caller ID, call waiting, call forwarding, or voice mailboxes (but not including data services);
- Installation or repair of telephone line(s);
- Telephone or pager purchases or rentals;
- Internet access or data services;
- Cable or satellite television services;
- DSL or ISDN charges; and
- Non-telephone related rentals or purchases.¹¹³

The BLS does indicate that the data is available at a finer level (e.g., disaggregated among the components listed above).¹¹⁴ The BLS reports, however, that this disaggregated data is not reliable. According to BLS:

¹¹² Id. at 26.

¹¹³ Bureau of Labor Statistics, Consumer Expenditures Surveys Quarterly Interview CAPI Survey, at Section 4, Part A (last modified March 21, 2006).

¹¹⁴ See also Bureau of Labor Statistics, *2004 Consumer Expenditure Interview Survey Public Use Microdata Documentation* (January 31, 2006) at 155-158.

Average expenditures on items at finer levels of detail might not be as reliable as those published for more aggregate levels because there are sometimes few reports of expenditures on more detailed items. A small number of unusually large purchases of infrequently reported items or an increase in the number of consumers reporting such expenditures might cause a large change in the average expenditure from one period to the next. **The tables published in the two-year reports, and on the Consumer Expenditure Survey Web site, show the expenditure component level at which the estimates are considered to be reliable.**¹¹⁵

That reliable “expenditure component level” is the total “telephone expenses” level reported in the CEX.

Confusing the consumer expenditures components reported by the CEX is not unprecedented. In seeking to establish an affordability benchmark for water bills, the Environmental Protection Agency (“EPA”) proposed to use CEX data. EPA posited that the CEX documented consumer expenditures on water service. A study published by the National Rural Water Association quickly pointed out the error of EPA’s analysis:

EPA has established 2.5% of median household income (MHI) as being an affordable expenditure for water service. Its justification for using this figure is seriously flawed in several respects.

At the most basic level, EPA commits a serious error in interpreting information from the Consumer Expenditure Survey. This survey, conducted by the Census Bureau for the Department of Labor’s Bureau of Labor Statistics, tracks household expenditures over time. The survey does not have a separate category for water service. Rather it combines water service in with wastewater service, trash removal, and “other public services” (this could include fire protection assessments and other services provided by local governments).

In conducting its analysis, however, EPA apparently assumed that 100% of household expenditures on this group of public services could be available for water service. For example, EPA states: “In establishing this

¹¹⁵ Bureau of Labor Statistics (March 17, 2005). *Consumer Expenditures Survey: Frequently Asked Questions*, Question 21 (emphasis added). (Question 21 asks: “Why doesn’t the Bureau of Labor Statistics publish more detailed expenditures?”) These FAQs are available at: <http://www.bls.gov/cex/csxfqs.htm> (accessed on May 10, 2006).

threshold [2.5% of Median Household Income], the Agency considered baseline household expenditures (as documented in the 1995 Consumer Expenditure Survey) for piped water relative to expenditure benchmarks for other household goods....¹¹⁶

EPA misconstrued the scope of the CEX-reported expenditures on “water and other public services.” Likewise, AT&T has misconstrued here the CEX-reported expenditures on “telephone services.” The “telephone services” expenditures data reported in the CEX includes far more than local telephone service. To the extent that “telephone services” represent 1.5% of median household income, local telephone service as a percentage of median income would be a substantially lower percentage. As a result, the percentage of income level AT&T recommends as a benchmark of “affordability” for local telephone service is substantially too high.

Just as the scope of what constitutes a “telephone service” as reported by the Consumer Expenditures Survey is not as clearly defined as AT&T would have it, the fundamental underlying concept of what constitutes “median income” is not as clearly defined as presented by AT&T. The table below presents “median income” as reported by the U.S. Census Bureau based on the 2000 Census. The table considers, for eight states from all regions of the country, median *household* income as compared to median *family* income. As can be seen, the difference in what figure is deemed to represent “median income” ranges between 16% and 23% for these eight states, depending on whether one uses “households” or “families” as the unit of analysis.

¹¹⁶ Scott Rubin, *Affordability of Water Service*, National Rural Water Association (Duncan, OK) (2001) at 11-12.

Statewide Median Household Income vs. Statewide Median Family Income
Eight Illustrative States (2000 Census)

	Alabama	Colorado	Maine	New Mexico	North Carolina	Ohio	Oregon	Pennsylvania
Median household income	\$34,135	\$47,203	\$37,240	\$34,133	\$39,184	\$40,956	\$40,916	\$40,106
Median family income	\$41,657	\$55,883	\$45,179	\$39,425	\$46,335	\$50,037	\$48,680	\$49,184
Percentage difference	22%	18%	21%	16%	18%	22%	19%	23%

American FactFinder, U.S. Census Bureau (2000 Census). Median household income: Table P53. Median family income: Table P77.

The Consumer Expenditures Survey, of course, uses *neither* the “household” nor the “family” as its unit of analysis. Instead, the CEX uses the “consumer unit” as its unit of analysis.¹¹⁷ The conclusion must be that the data that AT&T is using from its various information sources is not necessarily comparable data. Census data on “median income” does not correspond to “median income” as reported by the CEX.

The table on the next page documents the differences in income reported by the CEX and the Census Bureau. The table presents the average income for households as reported by the 2000 Census. The table further presents the average income for “consumer units” as reported for the 1999/2000 Consumer Expenditures Survey. The data presented is for each Metropolitan Statistical Area (“MSA”) for which the CEX reports data. As can be seen, the CEX data is

¹¹⁷ According to the CEX *Glossary*, a “consumer unit” is defined as follows: “A consumer unit comprises either: (1) all members of a particular household who are related by blood, marriage, adoption, or other legal arrangements; (2) a person living alone or sharing a household with others or living as a roomer in a private home or lodging house or in permanent living quarters in a hotel or motel, but who is financially independent; or (3) two or more persons living together who use their income to make joint expenditure decisions. Financial independence is determined by the three major expense categories: Housing, food, and other living expenses. To be considered financially independent, at least two of the three major expense categories have to be provided entirely, or in part, by the respondent.” Bureau of Labor Statistics, *BLS Glossary*, <http://stats.bls.gov/bls/glossary.htm> (accessed May 15, 2006).

universally lower than the Census data for the equivalent geographic areas.¹¹⁸ CEX income data is routinely 20% or more less than the Census income data, and up to 40% less. The AT&T assertion that CEX data on consumer units can be routinely compared to Census data on families and households is wrong.¹¹⁹

**Average Household Income Reported by 2000 Census Compared to
Average “Consumer Unit” Income Reported by 1999/2000 Consumer Expenditures Survey
By Metropolitan Statistical Area (MSA)**

	Census Data /a/	CEX Data	Difference
Anchorage, AK MSA	\$67,906	\$54,506	-25%
Atlanta, GA MSA	\$67,535	\$53,936	-25%
Boston--Worcester--Lawrence, MA--NH--ME--CT CMSA	\$69,340	\$49,557	-40%
Chicago--Gary--Kenosha, IL--IN--WI CMSA	\$67,321	\$51,332	-31%
Cincinnati--Hamilton, OH--KY--IN CMSA	\$58,407	\$45,737	-28%
Cleveland--Akron, OH CMSA	\$55,553	\$48,578	-14%
Dallas--Fort Worth, TX CMSA	\$63,874	\$56,046	-14%
Denver--Boulder--Greeley, CO CMSA	\$66,209	\$55,168	-20%
Detroit--Ann Arbor--Flint, MI CMSA	\$62,975	\$49,041	-28%
Honolulu, HI MSA	\$65,375	\$51,906	-26%
Houston--Galveston--Brazoria, TX CMSA	\$61,115	\$54,733	-12%
Kansas City, MO--KS MSA	\$58,878	\$51,298	-15%
Los Angeles--Riverside--Orange County, CA CMSA	\$63,755	\$52,776	-21%
Miami--Fort Lauderdale, FL CMSA	\$54,606	\$46,034	-19%
Milwaukee--Racine, WI CMSA	\$58,282	\$43,161	-35%
Minneapolis--St. Paul, MN--WI MSA	\$67,670	\$60,574	-12%
New York--Northern New Jersey--Long Island, NY--NJ--CT--PA CMSA	\$71,993	\$57,063	-26%

¹¹⁸ One would have expected that, were there to be a difference, the Census data would be somewhat lower, since the 2000 Census data is collected in 1999.

¹¹⁹ It is further possible that while the Census data is for Consolidated MSAs, the CEX data is only for MSAs.

**Average Household Income Reported by 2000 Census Compared to
Average “Consumer Unit” Income Reported by 1999/2000 Consumer Expenditures Survey
By Metropolitan Statistical Area (MSA) (cont’d)**

	Census Data /a/	CEX Data	Difference
Philadelphia--Wilmington--Atlantic City, PA--NJ--DE--MD CMSA	\$62,107	\$49,932	-24%
Phoenix--Mesa, AZ MSA	\$58,886	\$47,492	-24%
Pittsburgh, PA MSA	\$50,259	\$41,371	-21%
Portland--Salem, OR--WA CMSA	\$58,139	\$49,035	-19%
St. Louis, MO--IL MSA	\$57,543	\$45,251	-27%
San Diego, CA MSA	\$63,204	\$52,898	-19%
San Francisco--Oakland--San Jose, CA CMSA	\$83,525	\$64,818	-29%
Seattle--Tacoma--Bremerton, WA CMSA	\$64,658	\$51,292	-26%
Tampa--St. Petersburg--Clearwater, FL MSA	\$50,956	\$45,116	-13%
Washington--Baltimore, DC--MD--VA--WV CMSA	\$73,618	\$69,331	-6%

/a/ Average Census income derived by dividing aggregate household income by aggregate number of households.

Finally, the AT&T proposal does not take into account that “median income” is universally recognized to vary based on family size (using the “family” as the unit of analysis). The table below presents median family income by family size for the same illustrative states used above:

**Statewide Median Family Income by Family Size
Eight Illustrative States (2004 inflation-adjusted dollars)**

Family Size	Alabama	Colorado	Maine	New Mexico	North Carolina	Ohio	Oregon	Pennsylvania
1-person	\$45,768	\$58,849	\$51,372	\$42,240	\$47,112	\$51,966	\$51,011	\$53,680
2-person	\$39,755	\$54,187	\$46,340	\$39,876	\$42,105	\$44,734	\$47,080	\$44,361
3-person	\$48,957	\$58,565	\$52,432	\$41,420	\$49,206	\$55,390	\$52,842	\$58,986
4-person	\$54,338	\$66,664	\$64,083	\$47,256	\$55,117	\$62,991	\$59,202	\$66,569
5-person	\$50,905	\$67,550	\$61,736	\$48,057	\$50,957	\$60,180	\$51,770	\$64,607
6-person	\$45,435	\$59,808	\$56,569	\$39,199	\$49,092	\$58,743	\$56,304	\$66,196
7-persons or more	\$42,471	\$68,006	\$57,612	\$44,300	\$53,097	\$71,109	\$47,302	\$57,009

SOURCE: 2004 American Community Survey.

One phenomenon immediately evident from this data is that median income does not increase proportionately as family size increases. In only Colorado, North Carolina and Ohio, for example, is the median family income for a seven-person household greater than the median family income for a five-person household. In five of the eight states, the highest median income is among four-person families. Even setting aside the problems of what unit of analysis is appropriate (household, family, consumer unit), if median family income is going to be used as a benchmark, the FCC would need to carefully delineate what size of family unit would serve as the basis of benchmarking “median income.”

AT&T’s proposal lacks even fundamentally correct definitions of how to determine levels of telecommunications expenditures or median income. As discussed in the next section, however, AT&T’s “objective measure” of affordability is also seriously flawed.

B. AT&T FAILS TO ESTABLISH AN OBJECTIVE MEASURE OF “AFFORDABLE” SERVICE.

AT&T begins the analysis in favor of its proposed MARC by asserting that a determination of “affordability” should be based on whether “consumers can bear the costs of service in the face of their financial means.”¹²⁰ AT&T never establishes an objective measure of what local phone expenditures “consumers can bear ... in the face of their financial means,” however. Several failures are evident in AT&T’s analysis -- and in Qwest’s similar analysis as well.

First, while AT&T posits that the very definition of “affordability” must consider the telephone expenditures by consumers “in the face of their financial means,” AT&T immediately turns around to reject a consideration of the “financial means” of individual consumers. If

¹²⁰ AT&T Comments at 14.

affordability is set using a benchmark of median income (whether household income, family income, or the income of “consumer units”), by definition, substantial numbers of telephone customers -- those **below** the median -- will be faced with “unaffordable” telephone service. The range in income around “median income” in the various geographic areas is substantial. The U.S. Department of Housing and Urban Development (“HUD”), for example, annually publishes docile distributions of family income for every MSA and non-metropolitan county in the nation. Selected MSAs for the eight states previously examined are presented in the table on the following page.

ESTIMATED 2006 DECILE DISTRIBUTIONS OF FAMILY INCOME BY SELECTED METROPOLITAN STATISTICAL AREAS

	1st	2nd	3rd	4th	Median	6th	7th	8th	9th	9.5th
Birmingham-Hoover, AL MSA	\$15,800	\$27,000	\$37,000	\$46,600	\$57,400	\$69,200	\$82,900	\$102,300	\$138,000	\$185,300
Huntsville, AL MSA	\$18,900	\$31,400	\$42,700	\$53,300	\$64,800	\$77,900	\$93,200	\$113,700	\$146,200	\$183,600
Denver-Aurora, CO MSA	\$24,600	\$37,400	\$48,800	\$59,900	\$71,300	\$83,700	\$98,600	\$119,800	\$158,900	\$212,300
Fort Collins-Loveland, CO MSA	\$25,300	\$37,700	\$48,700	\$58,700	\$68,600	\$80,100	\$93,800	\$112,200	\$144,800	\$187,100
Bangor, ME MSA	\$15,300	\$25,400	\$34,400	\$43,300	\$51,700	\$61,200	\$72,700	\$87,100	\$111,400	\$142,300
Portland-South Portland-Biddeford, ME MSA	\$23,400	\$35,300	\$45,500	\$55,400	\$64,800	\$75,400	\$88,200	\$105,800	\$138,300	\$183,200
Albuquerque, NM MSA	\$15,800	\$25,600	\$34,900	\$43,600	\$53,200	\$63,700	\$76,800	\$94,800	\$125,200	\$162,800
Santa Fe, NM MSA	\$16,400	\$27,300	\$36,800	\$46,700	\$58,200	\$71,300	\$86,900	\$106,200	\$143,600	\$191,000
Charlotte-Gastonia-Concord, NC-SC MSA	\$20,900	\$32,800	\$43,300	\$53,700	\$64,400	\$75,900	\$89,700	\$109,800	\$147,200	\$200,000
Durham, NC MSA	\$18,000	\$29,800	\$40,100	\$50,800	\$61,700	\$73,300	\$88,200	\$110,100	\$150,000	\$200,500
Akron, OH MSA	\$19,900	\$31,700	\$41,700	\$51,600	\$61,300	\$72,300	\$85,300	\$103,300	\$135,300	\$177,400
Dayton, OH MSA	\$19,600	\$30,800	\$40,400	\$49,500	\$59,800	\$70,600	\$83,200	\$100,400	\$129,500	\$163,700
Portland-Vancouver-Beaverton, OR-WA MSA	\$22,900	\$35,500	\$46,100	\$56,300	\$66,900	\$78,400	\$92,400	\$111,800	\$146,700	\$190,800
Salem, OR MSA	\$18,700	\$30,100	\$38,700	\$47,900	\$56,800	\$66,800	\$78,700	\$93,600	\$120,200	\$148,700
Eric, PA MSA	\$18,800	\$28,300	\$36,900	\$45,500	\$54,300	\$63,600	\$74,900	\$89,500	\$114,600	\$144,800
Pittsburgh, PA MSA	\$18,900	\$29,200	\$38,200	\$47,600	\$57,400	\$68,200	\$81,000	\$98,400	\$130,600	\$171,500

As can be seen, households in the second decile of income have incomes that are typically roughly half of median income.¹²¹ Households in the third decile of income (well above 200% of the Federal Poverty Level) have incomes roughly equal to two-thirds of median income. If a determination of “affordability” is made based on median income, significant numbers of households with income below median income, but well above Lifeline eligibility, will, by definition, be excluded from having access to “affordable” local telephone service.

AT&T’s failure to take into account the affordability impacts of telephone expenditures at lower-than-median income has significant impacts on telephone affordability. Whether these affordability considerations are adequately taken into account through an examination of the telephone expenditures at median income (rather than some lower income) is not adequately addressed by AT&T.¹²²

Figure 1 below shows the percentage of income burden imposed by expenditures on telephone services as reported by the CEX disaggregated by quintile of income.¹²³ As shown in Figure 1, expenditures for telephone services (as a percentage of income) remain high even though the second quintile of income. While the households in the

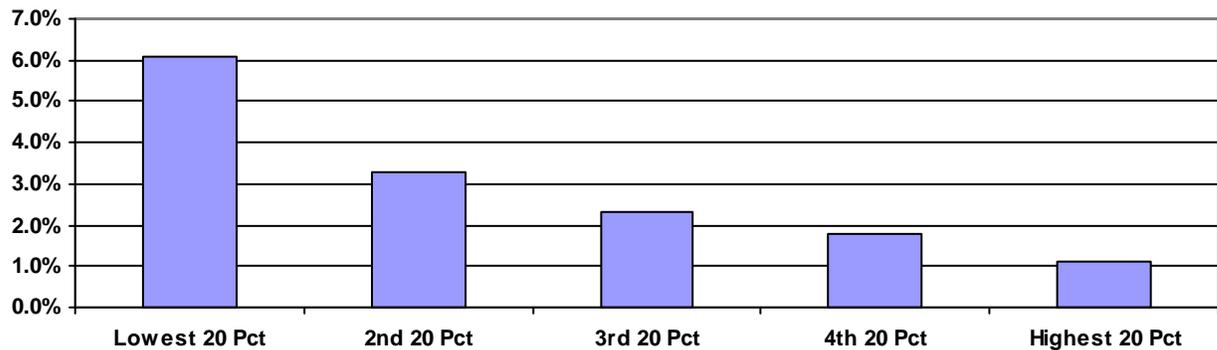
¹²¹ As a rule of thumb, 50% of median income is considered to be roughly equal to 200% of the Federal Poverty Level.

¹²² The issue of the affordability of telephone service to “low-income” households was dismissed by AT&T in its footnote 65, where it stated, “support for low-income individuals should be addressed by the Lifeline mechanism and increased if necessary.” Lifeline support now extends only to households with income at or below 135% of the Federal Poverty Level (FPL), unless the household receives governmental assistance from specific programs. A proposal to expand eligibility to 150% of FPL has been pending before the FCC for more than a year. Moreover, even within the currently eligible population, there is continuing concern about the crucial issue of the under-enrollment of income-eligible households in the telephone Lifeline program.

¹²³ The CEX disaggregates expenditures only by income quintiles, not by deciles.

lowest 20% of income have telephone expenditures of 6.1% of income, those in the second quintile (the second lowest 20%) have expenditures of 3.3% of income. Issues of affordability for telephone services range far above the income eligibility level now established for Lifeline service. Indeed, households in all but the highest quintile have expenditures of more than 1.5% of income.¹²⁴

Figure 1: Expenditures on Telephone Services as Percent of Income by Quintile of Income



Clearly, AT&T'S failure to take into account the burdens of telephone expenditures on telephone customers with income less than the median income fails to consider "affordability" within the context of the FCC's definition of the term. In its May 7, 1997 First Report and Order on universal service, the FCC defined the concept of "affordability" to include both an "absolute" component ("to have enough or the means for") and a "relative" component ("to bear the cost of without serious detriment").¹²⁵

According to the FCC, "both the absolute and relative components must be considered in

¹²⁴ According to AT&T, CEX data "indicate that consumers currently spend something on the order of 1.5% of their household income on local telephone service." AT&T Comments at 24. Since AT&T never reports the data it uses to determine its "affordable burden," it is not possible to associate the AT&T figures with the figures published by the BLS in the CEX.

¹²⁵ CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776 (1997) ("*First Report and Order*"), ¶¶ 109, et seq.

making the affordability determination required under the statute.”¹²⁶ For telephone service to be *not* affordable, in other words, a household need not lack telephone service altogether (a failure of the absolute aspect) if to retain service would impose “serious detriment” on the household (the relative aspect). To create an affordability benchmark based exclusively on median income is to ignore, at a minimum, the second half of the FCC’s definition of “affordability.”¹²⁷

As with the consideration of whether and how to use CEX data, the FCC could learn from the consideration of issues involving water affordability. The National Drinking Water Advisory Council’s (“NDWAC’s”) Small Systems Working Group directly addressed the issue of whether to base a measurement of “affordability” on median income. NDWAC’s Working Group reported:

Ability-to-pay focuses not on whether consumers *will* pay for water service, but on whether consumers *can* pay for water service. As a general proposition, households with higher incomes can consume proportionately more quantities of goods and services; this relationship generally holds for water consumption.

At lower income levels, choices are far more constrained and at times very painful. The ability-to-pay issue is especially acute for services essential to health and well-being, including food, medicine, and water and wastewater service. Moreover, utility bills have a regressive effect with respect to the distribution of household incomes; households at lower income levels must devote a greater percentage of their income to utilities than households at higher income levels. It can be argued that at higher income levels, consumers can afford to pay not only a higher total

¹²⁶ Id., ¶ 110.

¹²⁷ For this reason, the WisPSC’s use of the county median income for its intrastate USF (WisPSC Comments at 9) should not be adopted on the federal level.

water bill but also a higher percentage of their income toward water utility payments.¹²⁸

In helping the EPA to define what constitutes an affordable water burden, the Small Systems Working Group accepted the notion that affordability can be determined by reference to a bill burden (placing the household expenditure in the numerator and the household income in the denominator).

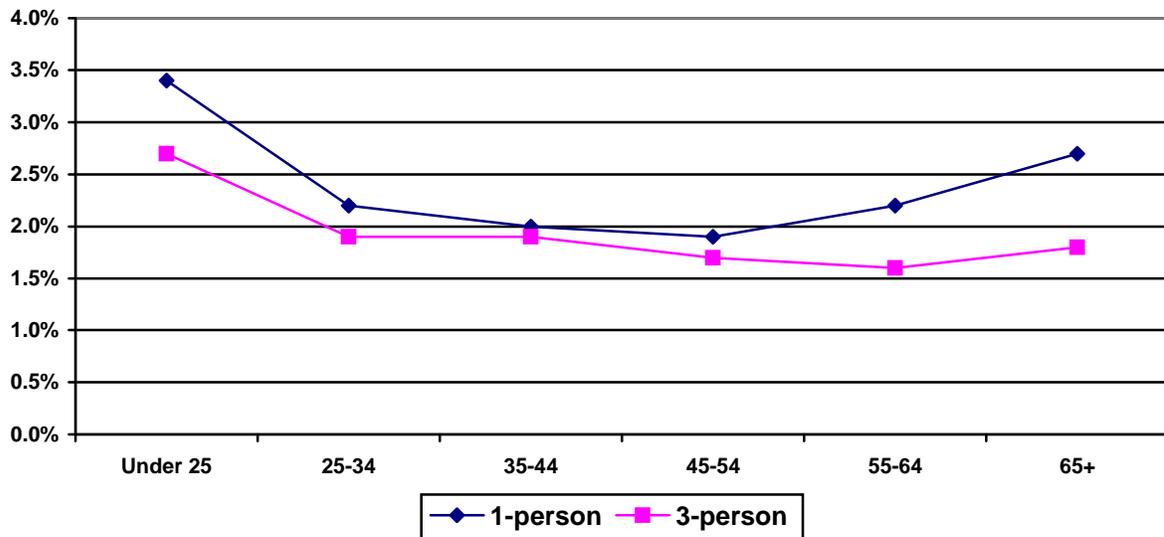
The Working Group went on to consider two variations to this burden-based approach to account for the fact that households with lower income have a more constrained ability to pay. First, the Working Group considered including using the mean (average) income in the denominator (rather than the median income). Since the median income in a geographic area tends to be lower than the mean, this approach makes the affordable burden more responsive to lower income. Second, the Working Group considered using a weighting of measures to capture poverty effects.¹²⁹ A weighted factor might, for example, accord a weight of 3x to the affordability factor at the median income and a weight of 1x to the affordability factor at the median income below 150% of the Federal Poverty Level. This approach explicitly takes into account both the number of lower-income households and the extent to which their incomes fall below the point of central tendency (either the mean or median). If the FCC adopts an affordability standard (which it need not do), the standard must take the impact on lower-income telephone customers into account.

¹²⁸ National Drinking Water Advisory Council, Small Systems Working Group, *Information to States on Affordability Criteria*, US. Environmental Protection Agency (Washington D.C. 2003) at 13 (emphasis in original).

¹²⁹ Id.

A second failure of the AT&T affordability proposal is its failure to acknowledge the extent to which telephone expenditures (and thus telephone burdens) may vary based on a wide variety of factors other than income. Setting aside the components of the “telephone services” expenditures reported by the CEX, establishing a reasonable percentage of income devoted to telephone services is not as straightforward as AT&T would have it seem. Figure 2 presents CEX-reported expenditures on total telephone services by age and household size. This figure presents data for 1-person households and 3-person households.

Figure 2: Percentage of Income Expenditures on “Telephone Services” by Age and Household Size¹³⁰

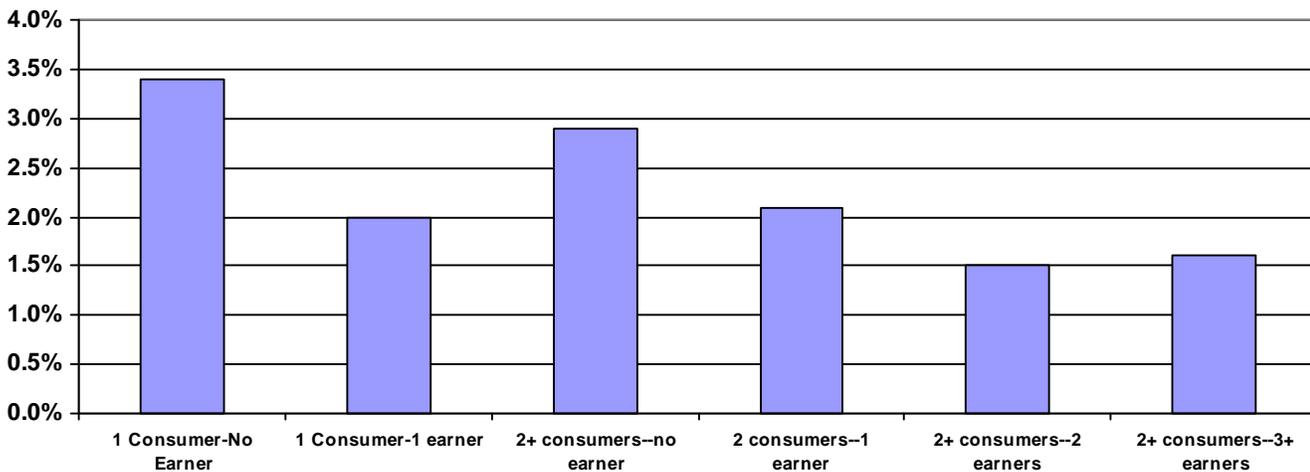


In contrast, Figure 3 below presents data on expenditures for “telephone services” by the number of earners in a household. “Consumer units” (which, as discussed above, is the CEX equivalent of “households” or “families” in demographic analysis) are divided into “consumer

¹³⁰ Data from CEX.

units,” with single consumers and “consumer units” with two or more consumers. Each of these is then distinguished by the number of “earners” in the “consumer unit.” A consumer unit with one consumer and no earner could be an unemployed single person, a college student living independently of his or her parents, or a retired person. Similarly, a consumer unit with two consumers and one earner could be a single mother with one child.

Figure 3: Percentage of Income Expenditures on “Telephone Services” by Work Status



Figures 2 and 3 document that a number of factors influence the relationship between income and telephone expenditures. In these two figures alone, factors that affect the percentage of income spent on telephone service include the size of the household, the age of the household members, and their work status. The notion that a single figure such as median income can capture sufficient information to allow the FCC to determine at what point telephone expenditures are affordable in an “absolute” and in a “relative” sense, as “affordability” was previously defined by the FCC, is simply wrong.

C. QWEST’S AFFORDABILITY ANALYSIS IS ALSO IN ERROR.

As discussed earlier, Qwest proposes a test of reasonable comparability where rates are set equal to a multiplier of national average urban rates for wireline local service. According to Qwest, “the Commission should redefine “reasonably comparable” such that rural rates are reasonably comparable if they are not more than 125% of the national average urban rate for wireline service.”¹³¹ Using information from the CEX, Qwest argues that “what the BLS data demonstrates is that where costs of service are below the benchmark, the rates that rural customers hypothetically pay if priced at that benchmark should keep rural spending on telephone services affordable when measured as a percentage of household spending.”¹³² Qwest states that, based on its analysis of CEX data, the affordability benchmark “is designed as a maximum weighted residential and business rate at which the general population of customers can afford to purchase telephone service.”¹³³ Qwest’s analysis contains serious errors.

First, the Qwest analysis uses the CEX data in a way in which it is not designed to be used. According to Qwest, the dollar expenditures reported in the CEX represent the dollars consumers can be expected to spend on telephone service.¹³⁴ That percentage of total expenditures, Qwest argues, must therefore be an affordable percentage for the

¹³¹ Qwest Comments at 23.

¹³² Id. at 24.

¹³³ Id. at 25.

¹³⁴ Id. at 28.

general population.¹³⁵ Several problems exist with the Qwest analysis, any one of which is fatal to Qwest's conclusions.

First, Qwest argues that "affordability" can be determined based on the percentage of total expenditures devoted to telephone service as reported by the CEX.

Qwest states:

Using the affordability benchmark as an actual expenditure, rural residential consumers would expend \$6.08 more per month than urban consumers and expend 2.8 percent of rural residential expenditures on telephone services compared to urban residential customers' expenditure of 2.3 percent. . .The \$33 affordability benchmark is designed to recognize the underlying cost of service in high-cost areas. While under this scenario rural residential telephone service expenditures increase to 2.8 percent of the rural residential budget, the 0.4 percent increased can be absorbed without displacing other critical expenditures.¹³⁶

The logic of Qwest's analysis is seen to be faulty when applied to different income levels.

The table below shows the percentage of total expenditures devoted to telephone service by income level as reported by the Consumer Expenditures Survey. As can be seen, the percentage of total expenditures represented by expenditures on telephone services

decreases as income increases. While consumer units with income between \$5,000 and \$10,000 spend 3.4% of their income on telephone services, consumer units with income of \$70,000 or more spend only 1.8% of their income on telephone services. In fact, as shown by this table, average expenditures by the highest income consumer units are nearly three times higher than the average expenditures by lower income consumer units.

¹³⁵ Id.

¹³⁶ Id.

The percentage of total expenditures devoted to any particular expenditure provides no insight into the “affordability” of that service.

Dollars of Expenditures and Proportion of Total Expenditures Devoted to Telephone Services By Income (2004)		
	Dollar Expenditures	Share of Total Expenditures
Less than \$5,000	2.9%	\$499
\$5,000 - \$9,999	3.4%	\$501
\$10,000 - \$14,999	3.2%	\$617
\$15,000 - \$19,999	3.0%	\$683
\$20,000 - \$29,999	2.9%	\$804
\$30,000 - \$39,999	2.6%	\$881
\$40,000 - \$49,999	2.6%	\$984
\$50,000 - \$69,999	2.4%	\$1,148
\$70,000 and more	1.8%	\$1,411
Total population	2.3%	\$990

Using Qwest’s analysis, one would conclude that households with higher incomes could afford to spend *less* on telephone services.

Care must be taken in interpreting the expenditure data from the CEX. The CEX data presents data on the sample mean. The data is the average of all responding consumer units. As the Bureau of Labor Statistics reports:

Expenditures are for consumers units with specified characteristics, *regardless of whether a particular unit incurred an expense for a specific item during the recordkeeping period.* The average expenditure for an item may be considerably lower than the expenditure by the [consumer units] that purchased the item. The less frequently an item is purchased, the greater the difference between the average for all consumer units and the average for those purchasing the item.¹³⁷

¹³⁷ Bureau of Labor Statistics, *Consumer Expenditures in 2003*, Report 986 (June 2005), Report 986 at 5 (emphasis added).

The CEX, in other words, does not report expenditures for any particular item for those households incurring expenditures for such an item. If a household does not purchase a particular item, **the household expenditure on that item goes into the average as \$0**. One reason that lower income households likely have a lower average expenditures on telephone services reported by the CEX, in other words, is because far more lower income households than upper income **lack telephone service altogether**. It is not possible to tell from the CEX data tables what average expenditures on any given item are for households buying that item.¹³⁸ The CEX data presented by Qwest do not allow a determination of the penetration of purchases within any population with particular characteristics. Nor does the CEX data presented by Qwest allow for a determination of the expenditures on telephone service by those households spending on telephone service.

Qwest uses CEX data to argue that rural telephone rates would be affordable on two different levels. First, Qwest argues that while under its proposal “rural residential telephone service expenditures increase to 2.8 percent of the rural residential budget, the 0.4 percent increase can be absorbed without displacing other critical expenditures.”¹³⁹ Second, Qwest argues that “the restated urban and rural expenditures continue to be within a reasonably comparable range. The difference between urban and rural expenditures under this analysis is only 0.5%.”¹⁴⁰

¹³⁸ When one considers this, the necessity of this conclusion -- confirmed by a conversation with BLS staff on May 12, 2006 -- becomes evident. If the average expenditures (and the average percentage of total expenditures) were limited to only those consumer units having such an expenditure, none of the data would be additive. Only by presenting the data as the sample means can additive data be presented.

¹³⁹ Qwest Comments at 28.

¹⁴⁰ Id.

What Qwest does not address is the uncertainty inherent in the CEX data. Qwest fails to report (let alone analyze) some of the most substantial limitations on the CEX data.

First, because CEX data is based on a population sample, there are errors in the data. As BLS reports:

Estimates of the average (mean) annual expenditure per CU in the CE tables for the year 2000 were based on a sample of about 30,000 CUs out of a total of about 109 million in the Nation. These mean estimates differ from the true population values because a subset, rather than the whole population, is observed. Sampling error is the difference between the survey estimate and the true population value.¹⁴¹

The “margin of error” in the CEX is generally considered to be two standard errors (standard errors are a generally-used statistical measure of variability associated with estimates based on samples). Standard errors for each expenditure figure presented by the CEX are published by BLS.

Qwest uses the average income published for urban consumers (\$44,172) and the average telephone expenditures¹⁴² for urban consumers (\$83.34) to calculate that the percentage of total urban expenditures devoted to telephone service is 2.3%.¹⁴³ This urban figure for total expenditures is relatively robust. According to the CEX, its standard error is \$439. Given that the CEX margin for error is two standard errors, the total expenditures for urban consumers can, in other words, be in the range of \$43,294 to

¹⁴¹ Jeffrey Blaha, *Standard Errors in the Consumer Expenditure Survey*, in *Consumer Expenditure Survey Anthology, 2003*, Bureau of Labor Statistics (2003) at 31.

¹⁴² As discussed above, this expenditure figure includes much more than just local telephone service.

¹⁴³ Qwest Comments at 27 ($\$83.34/\text{month} \times 12 \text{ months} = \$1,008 / \$44,172 = 2.3\%$).

\$44,050 (\$44,172 +/- (2*\$439)). At either end of the range, holding telephone expenditures constant, the proportion of total urban expenditures remain roughly around 2.2% to 2.3%.¹⁴⁴

In contrast, however, Qwest uses the average total expenditures for rural consumers (\$38,088) and a restated average telephone expenditures for rural consumers (\$89.42) to calculate that the percentage of total rural expenditures devoted to telephone service is 2.8%.¹⁴⁵ The rural total expenditure figure has a greater variability. Given the standard error of \$1,319, the rural total expenditure figure could range from \$35,450 to \$40,726. Simply as a result of this variability in total expenditures, the proportion of total expenditures devoted to telephone services would fall in the range of 2.6% to 3.0%.

The same analysis has to be applied to the telephone expenditures as well. Urban telephone expenditures have a standard error of \$9.78. Application of this standard error to urban telephone expenditures would thus yield a proportion of total expenditures devoted to telephone service in the range of 1.7% to 2.8%. The rural telephone expenditures have a standard error of \$13.65. Application of this standard error to rural telephone expenditures would yield a proportion of total expenditures devoted to telephone service of 2.0% to 3.7%.

As can be seen, within the range of expected telephone expenditures, and holding total expenditures constant (just for the ease of analysis), it is to be expected that the Qwest restated urban and rural rates could yield urban expenditures of 1.7% of total

¹⁴⁴ For an explanation of the application of the two standard error analysis to CEX data, see, Blaha, *supra*, at 31.

¹⁴⁵ Qwest Comments at 27.

expenditures, compared to rural expenditures of 3.7%, more than twice as high. Qwest is wrong to conclude that it is necessarily true that “while under [Qwest’s] scenario, rural residential telephone service expenditures increase to 2.8 percent of the rural residential budget, the 0.4% increase can be absorbed without displacing other critical expenditures.”

The variability in results both for total expenditures generally and for telephone expenditures in particular should be of concern when considering the impact on rural communities. The table below presents the CEX estimates of the coefficient of variation (“CV”). (The CV is simply the standard error as a percent of the standard mean.) As can be seen, the variation in rural estimates tends to run from three to four times higher than the variation in urban estimates.

Coefficient of Variation for Urban and Rural Consumer Units Total Expenditures and Proportion of Total Expenditures Devoted to Telephone Service					
	2004	2003	2002	2001	2000
Total (urban)	0.99	0.93	1.02	1.05	0.90
Total (rural)	3.46	3.02	4.82	3.62	3.44
Telephone (urban)	0.98	0.84	0.95	1.20	1.09
Telephone (rural)	1.48	2.70	3.35	2.07	3.15

In sum, the Qwest analysis based on Consumer Expenditures Survey data has substantive problems inherent within it. The CEX data on which Qwest relies cannot be viewed as establishing what represents an “affordable” expenditure on telephone services. Qwest does not take into account the fact that CEX data presents the sample mean. If a consumer unit surveyed for the CEX incurred no telephone expense because telephone service was too expensive, that consumer unit is included in the sample mean as a \$0 expenditure. Consumer expenditures can be at the level that they are at not

because they are affordable, but because they are not. The consumer expenditures reported in the CEX are not expenditures by consumer units having expenditures.

Moreover, the Qwest analysis purporting to show that rural telephone rates could be “restated” at higher levels with no impact on affordability do not take into account the inherent uncertainty (or variance) in the CEX. When measured by reference to this uncertainty, Qwest’s restated rural rates could result in rural expenditures (as a percent of total expenditures) more than twice as high as urban telephone expenditures are as a percentage of total urban expenditures (1.7% vs. 3.7%).

D. CONCLUSION: AT&T’S PROPOSAL MISSES THE MARC; QWEST’S FORMULA IS FLAWED.

AT&T’s proposal writes the principle of reasonable comparability out of the statute. It must be rejected for that reason alone. Qwest’s affordability formula also does not result in a program that would meet the statutory test.

Equally importantly, while AT&T’s proposal purports to establish an objective standard of what consumers can reasonably be expected to spend on telephone service, the “standard” is based on misuse of the data. AT&T’s proposal ignores the fundamental problem with using a median for a standard: half of the people in the area being considered will have incomes **below** the median, making what is affordable for those at the median by definition unaffordable for those below the median.

Qwest sets up a specious test in its search for rural rates that are affordable. Its distortions of the data are different and no more reliable than those by AT&T.

At base, AT&T’s proposal runs counter to the spirit of universal service. AT&T would have rates be raised until they are just below the affordability threshold. Congress

certainly did not intend the Act's universal service policies to be used as an excuse for widespread increases in rates.

APPENDIX G

CONSIDERATION OF LOCAL CALLING AREAS MUST BE PART OF THE PROCESS OF EVALUATING RATES.

The Commission understands that the extent of the local calling area may influence whether rural rates are reasonably comparable to urban rates:

[W]hile some states may want to keep local rates in rural areas very low, customers in such states may have very small calling areas and, consequently, make more toll calls. Other states may want rural customers to have very large calling areas so they do not have to make as many intrastate toll calls, but that may require higher local rates to offset the revenues the carrier would lose from toll calls. If rural rates in the second group of states were no higher than urban rates in the state, should they be considered to be reasonably comparable even though they may be higher than the rural rates in the first group of states?¹⁴⁶

Unfortunately, the Commission has posed the question incorrectly. The real issue is whether the total “local” rate in the rural exchange is reasonably comparable to the total local rate in the urban exchange. The typical urban exchange has an expansive local calling area; upon paying the basic rate customers are able to reach many, many other customers, including neighbors, businesses and governments. If a rural customer’s local calling area is as extensive as the urban customer’s, then the comparison of local rates is fair. If the rural customer must make numerous toll calls in order to have the same reach of calling within what is often referred to as a “community of interest,” then the comparison must be between the urban rate and the rural local rate plus some amount of toll calling.

¹⁴⁶ NPRM, ¶ 18.

It is a difficult task to determine what that equivalent local calling area should be. (In this respect, the task is no different from the others facing the Commission here.)

NASUCA submits that the task can be undertaken in two fundamentally different ways.

The first, establishing equivalent functional local calling areas, is something that may have to be done by the states. The second, measuring the cost of calling an equivalent number of customers, could be done on a state-by-state basis by the Commission. But for the immediate purposes here -- determining eligibility for support - - a simplified version of the second method could be used.

A. EQUIVALENT FUNCTIONAL AREAS

Under the functional approach, a “reasonably comparable” local calling area for a rural exchange would be defined as the ability to reach, as a local call: 1) each contiguous exchange; 2) the exchanges for any county seat that serves any part of the exchange; and 3) a metropolitan exchange, if the wire center is within the metropolitan statistical area (“MSA”) of a metropolitan exchange and/or within a state-specified distance from the metropolitan exchange.¹⁴⁷ Almost all urban exchanges have local calling areas that meet this standard. Each portion of the standard is discussed more fully below.

As to contiguous exchanges, for urban consumers, a call across the street, or to a neighbor, is always a local call. Unless contiguous rural exchanges are included in the local calling area, there will always be situations where calls that cross the artificial line that is the exchange boundary -- including calls to neighbors or across the street -- will be

¹⁴⁷ For example, in Ohio, the Ohio Consumers’ Counsel has proposed that exchanges within 22 miles of a metro exchange should have local calling to the metro exchange. See *In the Matter of the Commission’s Extended Area Service Rules Found in Chapter 4901:1-7, Ohio Administrative Code*, PUCO Case No 01-2253-TP-ORD, Comments of the Ohio Consumers’ Counsel (January 29, 2002) at 13-14 (accessible at <http://dis.puc.state.oh.us/dis.nsf/0/C48592B95461E14985256B52006D97CD?OpenDocument>).

“long distance” toll calls. Each rural exchange, in order to have service reasonably comparable to that in urban exchanges, should, at a minimum, have all contiguous exchanges included in its local calling area.

The next level involves county seat calling. There are three basic levels of government in most states: local (city, village or township), county and state. In most instances, local government is within a consumer’s home exchange. Where local government is not within the home exchange, it is most likely within the contiguous exchange. Thus local calling to contiguous exchanges will typically allow consumers local telephone access to their local government.

Depending on the size of the state, however, the state capital can be a true “long distance” call for most of the state. County government, although much closer than the state capital, may not be within a contiguous exchange for many rural customers. All citizens should be able to call their county government as a local call, and county government should be able to call its constituents as a local call. This is particularly important for rural counties.

Finally, “rural” customers who live near a metropolitan area -- in terms of absolute distance as determined by the state -- or within the MSA of the metropolitan exchange should be able to call the metro exchange as a local call, just as the residents within that metro exchange are able to. Among other things, this -- like the other standards proposed here -- will also ensure rural exchanges will remain or will become reasonably comparable to each other.

This sort of analysis would be difficult for the Commission to perform, and is better suited to the local expertise of the state commission. A state could be required to

certify -- in its annual universal service certification -- that its rural wire centers served by non-rural carriers have the minimum local calling area described here. But for the purposes of this Commission process, i.e., to determine whether a non-rural carrier can be eligible for federal support, a simpler approach would be more useful, as described in the next section.

B. NUMBER OF LINES REACHABLE WITH A LOCAL CALL

Where, as in most of the country, local calling is available on a “flat rate,” or unlimited usage for a fixed monthly charge, basis, the incremental cost to a customer of an additional call within the local calling area is zero. With a constricted local calling area, the customer’s decision to make calls outside the calling area is measured against the incremental cost of the toll call, usually billed at intraLATA toll rates.¹⁴⁸ Consumers’ reactions to this incremental cost will vary from consumer to consumer and month to month. It would be difficult to pin down a customer-specific “normal” cost of a constricted local calling area.

As described in Appendix F, NASUCA’s methodology included an analysis of the local calling areas of wire centers. The results of the analysis can be displayed as follows:

¹⁴⁸ Or the call is made with a wireless phone on an “all distance” plan.

Percent of the population living in urban areas	Number of Wire Centers	Average price of flat-rate residential service + SLC + FUSF	Number in calling area	People who can be called for dollar of price	Natural log of people who can be called for dollar of price
	(a)	(b)	(c)	(d) = (c)/(b)	(e) = ln [(c)/(b)]
0	1,808	21.00	200,850	9,564	0.58
0-20%	3,979	20.81	672,781	32,325	0.64
20-40%	545	20.47	645,037	31,507	0.65
40-60%	1,057	20.42	896,842	43,914	0.67
60-80%	1,393	20.34	775,582	38,132	0.67
80-100%	4,278	19.40	2,924,367	150,715	0.77
100%	1,092	19.57	4,624,126	236,246	0.78
Sample avg. (0-100%)	11,252	19.63	2,454,104	125,001	0.75

The fourth column is a measure of the potential benefit from subscribing to flat-rate residential service. Column 4 shows that consumers in 100% urban areas can reach almost 25 times as many other customers per dollar as those in the most rural areas.

This provides a measure of the value of local telephone service. Arguably, however, the numerator in this calculation is overstated because no recognition is made of the diminishing benefit of being able to reach certain places or persons. For example, a customer in a city has a need to reach a few dry cleaners, but not one hundred dry cleaners. The fifth column in the chart reflects an adjustment for these diminishing returns by taking the natural logarithm of the number of reachable persons. This table

shows that even after controlling for diminishing benefits from the wider calling area, it is still the case that rates in rural areas are not reasonably comparable to urban areas.

For the purposes of NASUCA's second alternative here, that is, determining eligibility for consideration for support rather than calculating support, a "rough justice" would be achieved if it were assumed that a 35% adder to rural rates would simulate the cost of an equivalent to urban rates.¹⁴⁹ This criterion would not award support to any wire center that does not have high costs.

¹⁴⁹ That is, $0.78/0.58 \approx 1.35$.

APPENDIX H

THE NEED FOR STATE SUPPORT MECHANISMS

The *Qwest I* court noted the Commission’s argument that it did not have jurisdiction to set intrastate rates, but stated, “The FCC may not have jurisdiction with respect to intrastate rates, but it is nevertheless obligated to formulate its policies so as to achieve the goal of reasonable comparability by inducing ‘sufficient ... State mechanisms’ to do so.”¹⁵⁰ The court further stated,

The FCC acknowledges that the *Ninth Order* will result in reasonably comparable rates only if the states implement their own universal-service policies. E.g., *Ninth Order* ¶ 56 (“We believe that this level of [federal] support will provide states with the ability to provide for a ‘fair range’ of urban and rural rates within their borders”). Yet there is nothing in the *Ninth Order* to induce such state mechanisms, and there is nothing in the Order requiring such inducements in the future if the states fail to provide for reasonable comparability between urban and rural rates as required by the statute. To the contrary, the *Ninth Order* expressly adopts the Joint Board's recommendation that the FCC “abstain from requiring any state action as a condition for receiving federal high-cost universal service support” other than the certifications required by § 254(e). *Ninth Order* ¶ 67. As noted above, the Act requires the FCC to base its policies on the principle that there should be sufficient state mechanisms to promote universal service. Thus, the FCC must ensure that these mechanisms exist.¹⁵¹

The court acknowledged the dual federal/state responsibility for universal service, which creates the need for a “partnership between the federal and state governments” to preserve and advance universal service.¹⁵² As the court stated,

Thus, it is appropriate -- even necessary -- for the FCC to rely on state action in this area. We therefore reject *Qwest's* argument that the FCC alone must support the full costs of universal service.

¹⁵⁰ *Qwest I*, 258 F.3d at 1200.

¹⁵¹ *Id.* at 1203 (footnotes omitted).

¹⁵² *Id.*

Nevertheless, the FCC may not simply assume that the states will act on their own to preserve and advance universal service. It remains obligated to create some inducement - a “carrot” or a “stick,” for example, or simply a binding cooperative agreement with the states -- for the states to assist in implementing the goals of universal service.¹⁵³

In the *Order on Remand*, the Commission adopted just such an inducement mechanism, which the *Qwest II* court found to be adequate. As the *Qwest II* court stated,

[T]he FCC has drafted a requirement into its support mechanism for non-rural carriers requiring states to certify that rural rates within their boundaries are reasonably comparable. If they are not, the states must develop and present an action plan to the FCC indicating the state's response. If the state fails to do so, federal funds will be withheld. ...

We are satisfied that the inducement mechanism contained in the *Order on Remand* adequately responds to the concerns we expressed in *Qwest I*. The mechanism requires a careful yearly review, and the prospect of withheld funds will certainly bring pressure to bear on the states. Petitioners have failed to proffer any evidence to suggest that the Commission's inducement mechanism will prove inadequate. As with any such mechanism, experience may indeed prove the best judge of its efficacy. The Commission is in a unique position to determine what inducements are necessary to effectuate the goals of the Act. While we can envision various approaches to more effectively induce state action, given our deferential standard of review, we cannot say that the Commission's determination in this case was arbitrary or capricious.¹⁵⁴

The fact that the Tenth Circuit found the inducement mechanism in the *Order on Remand* to be reasonable does not, of course, mean that this mechanism is the only appropriate mechanism. NASUCA submits that the requirement in its second alternative proposal for state action -- detailed below -- reasonably goes beyond the mechanism created in the

¹⁵³ Id. at 1203-1204.

¹⁵⁴ *Qwest II*, 398 F.3d at 1238.

Order on Remand because of the broader scope of the proposal, which focuses more on the rates that the *Qwest I* court acknowledged were primarily states' responsibility.

One action that NASUCA's proposal does *not* require of the states is transforming implicit support into explicit support. The *Qwest II* court definitively found that such was not required under the 1996 Act, given that the Act explicitly makes explicitness a condition for federal support but not for state support.¹⁵⁵ This principle clearly allows the existence of statewide averaged rates, as seen in many states.¹⁵⁶ The Commission's non-rural high-cost mechanism cannot interfere with these state decisions, and should not create incentives that would cause states to move away from statewide averaged rates.

¹⁵⁵ Id. at 1232-1233; see also id. at 1238.

¹⁵⁶ See footnote **Error! Bookmark not defined.**, supra.

APPENDIX I

OTHER MEANS OF “ADVANCING” UNIVERSAL SERVICE

Some have indicated that the goal of universal service has largely been met, principally because of the reported level of telephone subscribership. Yet as noted by NASUCA in a number of contexts, there are significant questions about the accuracy of the Commission’s assessment of subscribership levels, based on recent reports that show significant decreases in subscribership.¹⁵⁷ One thing that the Commission can do to both preserve and advance universal service would be to expeditiously engage in a focused investigation into the accuracy of the subscribership reports. Clearly, it is impossible to know whether universal service programs are working unless we know their impact on consumers.

The subscribership reports show declines in service at all income levels. Yet there apparently is a somewhat greater decline in subscribership among low-income consumers. The FCC has recently taken steps to increase the effectiveness of the Lifeline and Link-up programs that assist low-income consumers, through the joint Commission/NARUC/NASUCA task force.¹⁵⁸ Continuing these efforts will both preserve and advance universal service.

In another direction, however, there is one key opportunity to advance universal service, by bringing the rural networks of non-rural carriers into the 21st century. Under its statutory authority, the Commission can adopt a program to incent the deployment of broadband service in such rural areas. NASUCA proposes such a program, as follows:

¹⁵⁷ See, e.g., CC Docket No. 96-45, NASUCA Comments on Joint Board High-Cost Proposals (September 30, 2005) at 2.

¹⁵⁸ See <http://www.lifeline.gov/>.

A. THE NETWORK INVESTMENT INCENTIVE PLAN

NASUCA proposes that the Commission adopt a Network Investment Incentive Plan (“NIIP”). The plan provides for a glide-path that reduces support to carriers that fail to provide access to advance services. Thus, the plan meets the Tenth Circuit’s concern that the Commission is responding to only one of the Act’s universal service standards, comparable rates, and not to the other standards, such as comparable access to advanced services.¹⁵⁹ Moreover, the plan is responding to a growing body of evidence that confirms that non-rural carriers are not investing in the rural portions of their study areas.

Even telecommunications executives recognize that the non-rural carriers do not have an incentive to invest in rural areas. For example, one executive recently intimated “that many telcos have chosen to milk the wireline network instead of investing in it.”¹⁶⁰

The NIIP proposes to reduce support to carriers that does not provide broadband service in rural wire centers. In the first year, the plan reduces per-line support to 90 percent of support that would otherwise be received on every line that does not meet the broadband quality of service requirement. That requirement is the ability to provide high-speed service (200 kbps in at least one direction). After the first year, support would be reduced according to the following schedule:

- 2nd year: 2 percent reduction to 88 percent funding;
- 3rd year: 3 percent reduction to 85 percent funding;
- 4th year: 4 percent reduction to 81 percent funding;
- Then continue the pattern for each succeeding year.

¹⁵⁹ *Qwest II*, 398 F.3d at 1236.

¹⁶⁰ “Verizon Official Tells States More Reforms Needed to Spur Investment,” TRDaily (February 14, 2006) at 2.

Having the plan accelerate the incentive over a period of years, provides for a small incentive in the first year and increasing higher incentive in the out years. This glide-path allows the carriers the opportunity to meet the requirement without causing excessive problems in planning, purchasing and engineering the new facilities. At the same time, carriers that refuse to provide adequate service will receive less support. In addition, the plan does not dictate the type of technology used to provide the service. Each carrier is free to choose fiber to the home, fiber to the node, ADSL over copper or any other technology that is capable of providing the required service quality level.

B. RECENT EVIDENCE OF NON-RURAL CARRIER FAILURE TO INVEST IN THE RURAL SECTIONS OF THEIR STUDY AREAS

Evidence from a recent case in Maine, a Vermont state report and an academic study on broadband and universal service support that conclusion that non-rural carriers are allowing their rural wire centers to fall behind in provision of advanced services compared to either non-rural carriers' urban wire centers or the rural carriers' service territories.

First, in Maine, the President of Verizon-Maine has testified that a little over 65 percent of Verizon Maine's lines can provide ADSL service.¹⁶¹ This statement acknowledges that over 34 percent of Verizon Maine's working lines cannot provide ADSL service. A significant contributing factor that reduces the availability of ADSL service in the Verizon Maine service territory is the existence of older Digital Loop

¹⁶¹ *Investigation into Line Sharing Pursuant to State Law*, Maine Public Utilities Commission Docket No. 2004-809 ("Maine Line Sharing Docket"), Declaration of Edward Dinan (February 9, 2005), ¶ 11.

Carriers (“DLCs”) in the outside plant.¹⁶² The older DLCs do not have the ability to split the communications arriving from the end-user between low frequency voice messages and high frequency data communications. Instead, these older digital loop carriers merely pass through the low frequency messages and block the high frequency data communications.¹⁶³ On the other hand, the Maine independent telephone companies, rural carriers serving mostly rural sections of Maine, can provide ADSL service to between 85 to 100 percent of their customers.¹⁶⁴

Second, the Vermont Telecommunications Plan is a comprehensive report on the state of communications in Vermont combined with a set of policies, strategies and action plans. The report provides detailed maps of incumbent telecommunication carriers’ service territories (Figure 2.2) and DSL coverage as of May 2004 (Figure 3.1).¹⁶⁵ A comparison of the maps clearly indicates that rural carriers are providing DSL service, while there are large portions of rural Vermont served by Verizon that do not have DSL service.

Finally, Professor David Gabel’s paper, “Broadband and Universal Service,” investigates the relationship between federal support for telecommunications and the

¹⁶² Maine Line Sharing Docket, Direct Testimony of Robert Loube on behalf of the Office of Public Advocate (February 9, 2005) at 6-10.

¹⁶³ For a discussion of the different types of digital loop carriers see *In the Matter of Ameritech, transferor and SBC, Inc. Transferee*, CC Docket No. 98-141, Second Memorandum Opinion and Order (rel. September 8, 2000).

¹⁶⁴ Maine Line Sharing Docket, Rebuttal Testimony of Robert Loube on behalf of the Office of Public Advocate (March 18, 2005) at 27-28.

¹⁶⁵ Vermont Telecommunications Plan, September 2004, Department of Public Service, www.state.vt.us/psd

provision of DSL capable lines.¹⁶⁶ Specifically he tests to determine if federal support raises the likelihood that a working line is capable of DSL service. His test separates the impact of federal support from the impact of other important economic, demographic and regulatory variables.¹⁶⁷ These variables include population density, consumer wealth, the size of the market, whether the line is in a Metropolitan Statistical area, whether the state has price-cap regulation, and the ratio of UNE loop price to the embedded cost of the loop. The paper analyzes two data bases, one that includes 2,000 wire centers across the Verizon East footprint, and the other is restricted to the Vermont including small companies in Vermont.

Dr. Gabel's results show that a DSL capable line is more likely to be found in urban areas. Second for non-rural carriers, he found that federal support is not statistically related to the provision of DSL capable lines. Thus, the paper concludes that "together these parameter estimates suggest that the Commission is failing to achieve the Congressional goal that access to advance telecommunications and information services in 'in rural, insular and high cost areas... should...[be] reasonably comparable to those services provide in urban areas...'"¹⁶⁸

In his second statistical analysis, Dr. Gabel examined whether the existence of a cable competitor and whether the carrier participates in the NECA pools affects the deployment of DSL capable lines. These variables are in addition to the other variables

¹⁶⁶ "Broadband and Universal Service," Dr. David J. Gabel, Queens College and Internet and Telecommunications Convergence Consortium, Massachusetts Institute of Technology (July 18, 2005), accessible at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518012421.

¹⁶⁷ Id., page 3-4.

¹⁶⁸ Id., page 17 and 47 U.S.C. §254(b)(3).

listed above. This analysis was restricted to Vermont. Again, he finds that density is directly related to the provision of DSL lines and that the receipt of universal service HCM support has no impact on DSL deployment. In addition, he finds that the existence of a competitor also has no impact on the provision of DSL lines in rural areas.

However, he finds that carrier's membership in the National Exchange Carrier Association ("NECA") pools is directly related to the provision of DSL capable lines.¹⁶⁹ He notes that the members in the NECA pool are recipients of other types of universal service funding such as high cost loop, local switching support and interstate common line support. Thus, his study supports a conclusion that current universal service funding does affect the decisions of rural carriers to invest in advanced services but such funding does not affect the decision making of non-rural carriers.¹⁷⁰ Therefore, there is a need to change the incentives associated with providing universal service to non-rural carriers in order to address the problem of the lack of investment in high-speed and broadband facilities in the rural portions of non-rural carriers' study areas. This can be done as the NIIP provides, by providing a disincentive for failure to invest.

¹⁶⁹ Id., page 22.

¹⁷⁰ Id.

APPENDIX J

THE RURAL DIFFERENCE¹⁷¹

It may be that it is possible to unify the rural and non-rural carrier programs to some extent. For now, however, it appears that combining the largest non-rural carriers with the smallest rural carriers in a single mechanism will likely harm the smallest of the small and their customers. The small companies are significantly different from their non-rural counterparts.¹⁷²

The non-rural carriers are, by definition, the largest ILECs in the nation. They serve rural areas in the various states, yet their predominant service areas -- as signaled by the term “non-rural” -- are not rural, and indeed encompass most of the urban, low-cost areas in the states. The Commission should recognize the characteristics of those companies, and not attempt to adopt a single support mechanism for carriers of all sizes without careful study.

The Commission has adopted a different cost-evaluation methodology for the non-rural carriers than for the rural carriers: Non-rural carriers are subject to a cost model that uses forward-looking costs, while the rural carriers’ analysis continues to use embedded costs.¹⁷³ NASUCA has proposed that larger rural carriers (with more than 100,000 access lines within a state) be transitioned to a forward-looking cost model.¹⁷⁴

This differential treatment is justified by the significant differences between rural carriers and non-rural carriers. The Rural Task Force paper on “The Rural Difference” authoritatively summarizes these differences, focusing on the characteristics of the rural carriers.¹⁷⁵

In most states, the non-rural companies’ rural territory is a small part of the ILEC’s operation, dominated by urban and suburban territory. In almost all cases, these

¹⁷¹ This material is adapted from NASUCA’s initial comments (submitted October 3, 2005), in response to FCC 05J-1, and was included as Appendix 4 to NASUCA’s Comments on the Joint Board Recommended Decision, filed April 17, 2008.

¹⁷² That is why, for example, NASUCA proposed, for the meantime, shielding carriers with fewer than 100,000 access lines within a state from the move to basing costs on a forward-looking cost model; indeed, recognizing these differences is behind NASUCA’s proposal that larger rural carriers not be treated the same as non-rural carriers even under forward-looking costs. See NASUCA RHC Reply Comments at 20-21.

¹⁷³ Compare *Ninth Report and Order*, ¶ 2 to *Fourteenth Report and Order*, ¶ 8.

¹⁷⁴ NASUCA RHC Reply Comments at 20-21.

¹⁷⁵ “The Rural Difference,” Rural Task Force White Paper 2 (January 2000) (available at <http://www.wutc.wa.gov/rtf>) (“*The Rural Difference*”); see *Fourteenth Report and Order*, ¶ 17. As shown in *The Rural Difference*, the smaller the carrier, the greater would be its difficulty in adapting to a rate structure that does not include current levels of support from all sources.

companies are affiliates of some of the largest corporations in the country. And in most cases, these local companies produce healthy earnings for their investors.

All of these distinctions support definitions of “sufficient” and “reasonably comparable” for the non-rural carriers that tend to limit, rather than expand, the level of federal universal service support provided to the non-rural carriers. Many of these carriers clearly have the resources -- on the intrastate level and the interstate level -- to ensure that their rural rates are reasonably comparable to their urban rates, without support from the federal USF.

Moving to the rural side, it is important to recognize why rural rates might tend to be higher than urban rates. The first reason is that many of the direct costs of service in rural areas will tend to be higher than in urban areas.¹⁷⁶ The second reason is that most of the service in urban areas is provided by large telephone companies, which may also serve rural areas. By contrast, much of the service in rural areas is provided by smaller companies. The smaller companies have less of an ability to spread their common and other costs across a smaller customer base without increasing rates to levels that might not be reasonably comparable to those of their larger urban counterparts.

Indeed, it is this ability to spread common costs -- and indeed, all higher costs of service -- across a larger customer base that underlies much of the current federal support program for non-rural companies. The use of statewide average costs¹⁷⁷ allows larger companies to maintain reasonably comparable rural rates because they are supported by the lower urban costs the company also experiences. For example, AT&T Ohio serves considerable rural territory across the state of Ohio.¹⁷⁸ Yet AT&T Ohio also serves seven of the eight major metropolitan areas in the state.¹⁷⁹ As a result, AT&T Ohio’s *statewide average* costs are low, and no explicit universal service support is needed to ensure comparable rates.

By contrast, in Ohio a small telephone company -- like the state’s smallest, Vaughnsville Telephone Company with 330-some access lines in northwestern Ohio -- serves only rural territory, and has only a few customers over which to spread its common costs.¹⁸⁰ Thus for Vaughnsville, rates will tend to be not reasonably comparable to urban rates, unless there is explicit universal service support.

This is true in rural areas of northwest Ohio where conditions are hardly extreme. It is even more true in rural areas in other states, where mountainous conditions or very

¹⁷⁶ Although there might be exceptions: For example, some of the costs of laying lines in urban areas can be higher, because they involve digging up and repairing streets.

¹⁷⁷ *Order on Remand*, ¶ 25. This principle was not reversed by *Qwest II*, which reversed other portions of the *Order on Remand*.

¹⁷⁸ See <http://www.puc.state.oh.us/pucogis/statewidemaps.htm>.

¹⁷⁹ *Id.*

¹⁸⁰ See <http://www.puc.state.oh.us/website/telserv3>.

widely scattered customers make the costs of service significantly higher than a “lower cost” rural company.¹⁸¹ These costly conditions are also, of course, observed for large non-rural telephone companies like Qwest in Colorado, but, as in Ohio for AT&T Ohio, Qwest in Colorado has lower-cost areas to balance out its high-cost areas. Once again, because Qwest’s statewide average costs in Colorado are low,¹⁸² no additional explicit support is necessary.

The presumption should be that, unless a larger rural carrier overall has high costs, it does not have a need for federal support in order to keep service affordable and reasonably comparable in the high-cost areas of its territory. High costs, especially high deployment costs, would be reflected in a company-specific forward-looking cost test, as NASUCA discusses below.

As described in NASUCA RHC Reply Comments, a key recommendation is that the Commission move from the current system, which essentially recognizes only two categories of carriers -- rural and non-rural -- to a system that subdivides the rural category according to the significant differences among rural carriers.¹⁸³ In the *Fourteenth Report and Order*, the Commission said that the rural mechanism adopted there “strikes the appropriate balance at this time.”¹⁸⁴ It is time to further adjust the mechanism.

The Rural Difference shows not only the many differences between non-rural carriers and rural carriers, but the diversity among rural carriers. It should be intuitively obvious that a carrier with 300 access lines would not have much in common with a carrier that had 100,000 access lines, and, of course, have even less in common with a carrier that had a million or two access lines. But *The Rural Difference* specifically shows that, by and large, carriers that serve more than 20,000 access lines have embedded cost characteristics that are not radically different from non-rural carriers (one could say that their embedded costs are reasonably comparable to non-rural carriers).¹⁸⁵ Once below 20,000 access lines, cost structures increase substantially until the smallest carriers (those with less than 1,000 access lines) have embedded operational costs double and triple those of the average rural carrier, and three or four times those of non-rural carriers.

¹⁸¹ For example, Vaughnsville’s approximately 400 customers are spread over service territory of less than ten square miles. By contrast, rural carriers in Alaska and Wyoming serve, respectively, areas with 0.58 and 1.25 persons per square mile. *The Rural Difference* at 9.

¹⁸² As shown on Appendix HC16 of USAC’s universal service fund reports for the second quarter of 2008, the average non-rural carrier costs of Colorado and Ohio are virtually the same, \$23.26 per line vs. \$23.27 per line.

¹⁸³ NASUCA RHC Reply Comments at 20-21.

¹⁸⁴ *Fourteenth Report and Order*, ¶ 28.

¹⁸⁵ Indeed, because the comparison in *The Rural Difference* is between rural carriers and all non-rural carriers (including the largest regional Bell Operating Companies), it appears likely that a comparison between the larger rural carriers and the smaller non-rural carriers (like Roseville and Northstate) would show even less of a difference.

The Rural Difference discusses a range of “operational related variables.”¹⁸⁶ The graphs included in that discussion show commonalities among carriers with 20,000-50,000 lines, with 50,000-100,000 lines and with more than 100,000 lines, in contrast to the 10,000-20,000 lines and the five smallest groups. Commonalities are seen in the following categories: average lines per local switch,¹⁸⁷ loops per sheath mile,¹⁸⁸ total plant (gross) investment per loop,¹⁸⁹ average gross central office equipment (“COE”) investment per loop,¹⁹⁰ average COE transmission investment (gross) per loop,¹⁹¹ variability in COE transmission investment per loop,¹⁹² average cable and wire facilities investment per loop,¹⁹³ and average plant expenses per loop.¹⁹⁴ Based on this, the Commission clearly needs to update its cost models before attempting to unify the rural and non-rural funds.

¹⁸⁶ *The Rural Difference* at 43-57.

¹⁸⁷ *Id.* at 45.

¹⁸⁸ *Id.* at 46.

¹⁸⁹ *Id.* at 47.

¹⁹⁰ *Id.* at 50.

¹⁹¹ *Id.* at 51.

¹⁹² *Id.* at 52.

¹⁹³ *Id.* at 53.

¹⁹⁴ *Id.* at 54.

APPENDIX K

GRADUALISM SHOULD BE A KEY PART OF THE PROCESS IN MODIFYING THE HIGH-COST SUPPORT MECHANISM FOR NON-RURAL CARRIERS.¹⁹⁵

The non-rural high-cost mechanism -- at least the HCM piece of it -- has been in effect since adopted in the *Ninth Report and Order* in 1999. *The Order on Remand* in 2003 basically “tweaked” the HCM, changing the reasonable comparability benchmark based on costs from 135% to two standard deviations.¹⁹⁶ NASUCA proposes here substantial changes to the mechanism such that it will either be based on a comparison of costs to revenues or will be based from the outset on reasonable comparability of *rates*. The high-cost mechanism will now subsume the IAS and ICL support mechanisms (dating from 2000 and 2001 respectively) which have never included any consideration of rates.

These factors, among many others, including the local calling area issues discussed in Section VIII., argue for a gradual transition to the new mechanism rather than a flash-cut change. This is true under either of NASUCA’s alternative proposals, where a phase-out of current support (where support is eliminated or materially decreased) or a phase-in of new support (where there is no current support or there is a material increase to the current support) would be appropriate.¹⁹⁷ No ILEC will see a flash-cut reduction to zero (unless its current support is minimal); neither will any ILEC

¹⁹⁵ This material is adapted from NASUCA’s *NRHC Remand* comments at 59-60.

¹⁹⁶ The adoption of a rate benchmark in the *Order on Remand* was new, but had no real impact on the level of support.

¹⁹⁷ NASUCA’s proposals include HCM and IAS/ICL as current support; the likelihood that either of NASUCA’s single-support alternative mechanisms will yield results identical to the current two-part support is small.

see a huge influx of support where currently it receives little or no support. This transition should ease the burden on customers, carriers and the USF itself.

NASUCA's second alternative proposal also promotes gradualism by focusing first on the rural wire centers where rates are highest and least comparable, and where support is not currently made available.¹⁹⁸ The process would then move to states and carriers that currently receive high-cost funds but still have high rural rates that are not reasonably comparable, even with the support. Also considered early in the proposal would be rural wire centers that currently receive support where loss of the support would not likely result in rates that are not reasonably comparable. NASUCA's proposal thus prioritizes the areas for review, leaving for last the areas that currently receive no support and have reasonably comparable rates -- specifically because none of the state commissions in those states have asserted that their rural rates are **not** reasonably comparable to urban rates given the current lack of support.

The other piece of gradualism that is built into NASUCA's second alternative is the continuing and continual availability of the state backstop mechanism. There, if the results at any point of the mechanical implementation of the process do not adequately reflect state-specific conditions, the state will be able to plead its case to the Commission and seek additional support.¹⁹⁹

¹⁹⁸ As noted in NASUCA's proposal, if the high rural rates are the result of state ratemaking decisions that have also produced high **urban** rates, then the primary responsibility for support should rest with the states.

¹⁹⁹ Given the importance of the backstop mechanism, it will be necessary for the Commission to act on requests more expeditiously than it has on Wyoming's under the current mechanism. See footnote **Error! Bookmark not defined.**, supra.

APPENDIX L

ADDITIONAL DISCUSSION ON STATEWIDE AVERAGING

A. Response to Windstream Proposal²⁰⁰

Windstream's take on the current fund structure is relatively simple:

It provides too much support to some incumbent local exchange carriers ... and not enough to others, all without an objective way to assure service is affordable to consumers. These flaws are to the detriment of all consumers paying for universal service, and in particular to the detriment of rural consumers living in areas served by underfunded carriers.²⁰¹

Unfortunately, Windstream does not deign to identify the ILECs that it believes are "overfunded." Windstream also does not identify any of the ILECs that are allegedly underfunded, so that an evaluation could be made of the "detriment" to the rural customers served by those carriers. It is probably safe to assume, however, that Windstream believes that some (if not all) of its own rural customers suffer from underfunding, or more likely, that it (Windstream) suffers from underfunding.

There are two keys to Windstream's proposal: "[T]he Commission should act now to place all price cap companies under a forward-looking mechanism, and reform the mechanism to eliminate eligibility requirements based on statewide average costs."²⁰² This is supposedly necessary because the current system "particularly disadvantages rural price cap companies subject to the embedded cost mechanism."²⁰³ In other words, basing these rural carriers' support on their actual costs provides less support than the support

²⁰⁰ This section is adapted from NASUCA's 2008 RD Combined Reply Comments at .

²⁰¹ Windstream Comments at 2.

²⁰² Id. at 2.

²⁰³ Id. at 5.

that would be provided under a forward-looking mechanism **in the absence of statewide averaging**.²⁰⁴ Presumably, Windstream believes that its funding will increase under its proposal. (Windstream’s proposal suffers by contrast with Qwest’s, which at least revealed the amount of resultant benefit to the proposer.)

Based only on the allocation of space in its comments, however, it would appear that doing away with statewide averaging is more important to Windstream. At length, Windstream discusses some of the original bases for the policy, but ignores much of the original and subsequent rationale.²⁰⁵

The central problem, in Windstream’s view, is that

[m]any states have failed to take advantage of “the opportunity to support [their] high-cost wire centers with funds from [their] low-cost wire centers” through establishment of an explicit state fund. Consequently many carriers in genuinely high-cost areas are grossly underfunded. States fail to provide support that reduce these carriers’ costs to a level equal to statewide average costs. Then compounding the problem, the Commission assumes the carriers’ states have rebalanced rates (even if they have not) and, in most cases, fails to provide adequate support on that basis. Currently carriers in 40 states do not receive any forward-looking support to offset the costs of serving high-cost areas.²⁰⁶

One hardly knows where to begin in pointing out the flaws in this argument. One place would be pointing out that the reference to “forward-looking support” (which in 2007 amounted to \$346 million) overlooks IAS, which in 2007 awarded \$645 million in high-cost funding to non-rural carriers, with, as noted above, only one jurisdiction not

²⁰⁴ Notably, other than its proposal to do away with statewide averaging for all price-cap carriers, Windstream does not propose any changes to the FCC’s current model.

²⁰⁵ See NASUCA Comments at 41-46.

²⁰⁶ Windstream Comments at 10, quoting *Ninth Report and Order*, ¶ 49.

receiving high-cost funding.²⁰⁷ Another point would be to note that states that have not rebalanced rates or established intrastate universal service funds have evidently not seen the need to do so. But the biggest problem with Windstream’s argument is that it utterly fails to identify any carrier in any state that is underfunded, or where rates are not affordable or reasonably comparable. Although typical of the industry, this sort of rhetoric is hardly the basis for major changes to the high-cost fund.

Windstream itself acknowledges that “[w]hen adopting this forward-looking mechanism, the Commission acknowledged that ‘the 1996 Act does not require states to establish explicit intrastate universal service support mechanisms.’”²⁰⁸ Windstream does not mention, however, that the *Qwest II* court agreed, and found the FCC’s “inducements” for such mechanisms to be adequate.²⁰⁹ Likewise, Windstream quotes extensively from *Qwest I*, but fails to acknowledge that *Qwest I* upheld the process of statewide averaging.²¹⁰

As NASUCA stated in the initial comments,

[T]he Commission should maintain the current practice of statewide cost-averaging for the large non-rural carriers. Where statewide average cost for non-rural carriers is below the relevant federal benchmark, it is appropriate for support, if any, to be an intrastate issue decided by individual states.²¹¹

Further, as NASUCA noted, the need for statewide averaging exists “whether or not the state contains low-cost metropolitan areas, i.e., if the rural costs for the areas of the state

²⁰⁷ See footnote 3.

²⁰⁸ Windstream Comments at 9, citing *Ninth Report and Order*, ¶ 46, n.140.

²⁰⁹ *Qwest II*, 398 F.3d at 1238.

²¹⁰ *Qwest Corporation v. FCC*, 258 F.3d 1191, 1202 (10th Cir. 2001) (“*Qwest I*”).

²¹¹ NASUCA Comments at 41-42 (footnote omitted).

served by non-rural carriers are not high enough to force high rates. It is especially true in states that have low-cost metropolitan areas.”²¹²

Where states have not adopted intrastate support mechanisms for carriers subject to statewide averaging, it should not be the federal responsibility (or, concomitantly, the responsibility of citizens of other states) to support the carriers in those states. If a state is **unable** to provide adequate support for those carriers -- for economic reasons rather than due to failure of political will -- it should be able to apply to the Commission for supplemental support.

Windstream attempts to minimize the impact of its proposal by proposing to

cap the ... mechanism at a level equal to the total amount currently distributed to the price cap carriers under the rural mechanism, all carriers under the non-rural mechanism, and access charge replacement and Local Switching Support ... for CETCs.... The Commission may choose to supplement this funding in the future with money saved by eliminating the identical support rule and using reverse auctions to reduce the number of mobile CETCs to one per area....²¹³

By including “access charge replacement and Local Switching Support ... for CETCs” in the cap for incumbent price-cap carriers, Windstream is in fact inflating the allocation of support to incumbent carriers beyond its current levels.²¹⁴ And these dollars would be part of the savings from “eliminating the identical support rule and using reverse auctions to reduce the number of mobile CETCs,” so Windstream is double-counting those amounts.

²¹² Id. at 42, n. 124.

²¹³ Windstream Comments at 7.

²¹⁴ It is also not clear why those CETC amounts should be allocated to ILECs at all.

More importantly, by doing away with statewide averaging and placing the fund under a cap, Windstream's proposal would simply dilute the current funding. This issue was addressed in NASUCA's initial comments, regarding Qwest's similar proposal.²¹⁵

In the end, there simply has been no showing that either basing price-cap rural carriers' support on embedded costs, or statewide averaging, results in underfunding. As NASUCA proposed in 2005, placing the largest rural carriers under the forward-looking cost model would have reduced the fund by \$200 million.²¹⁶ And, as noted, no commenter has shown specific situations of underfunding caused by statewide averaging. Most importantly, it has not been shown that this alleged underfunding has resulted in -- or even threatens -- rural rates that are unaffordable or that are not reasonably comparable to urban rates.

B. Excerpt from NASUCA Letter to House Subcommittee

NASUCA also disagrees with some of the witnesses in regard to the use of statewide vs. wire center averaging for the purposes of calculating universal service support.²¹⁷ Mr. Davis from Qwest focuses on the supposed inequity of the "fact" that, Qwest (despite the rural nature of its territory) "[i]n 2009 is projected to receive approximately \$25 million in support from the high cost fund...."²¹⁸ In truth, the \$25 million comes only from the "high-cost model" portion of the fund; in 2008, Qwest received a total of \$75 million from the whole high-cost fund.

That slight inaccuracy aside, the key issue is not that "support to high-cost areas should not depend on the type of company providing the service or the type of technology used...."²¹⁹ The key issue is that support **should** depend on the **size** of the company providing the service. Companies like Qwest and Verizon and AT&T should

²¹⁵ NASUCA Comments at 43-44.

²¹⁶ Id. at 38-39.

²¹⁷ Tauke Testimony at 8-9.

²¹⁸ Davis Testimony at 5.

²¹⁹ Id. at 6.

be able to support their service to rural areas with their services in urban areas.²²⁰ Qwest's notion of a "company-neutral" support mechanism is an excuse to increase its support; according to Qwest in an FCC filing, its proposal, if applied to all non-rural companies would increase the amount of support provided to non-rural eligible telecommunications carriers ('ETCs') by about **\$1.2 billion**.²²¹ And more than \$140 million of that increased amount would go to Qwest.

Mr. Davis states that the current means of support is not sustainable because of the inroads of competition in the large carriers' urban territories.²²² But we have not seen at the state level any significant push from the large carriers to increase their rural rates in response to this supposed loss of support.

Smaller (but still very large) carriers echo Mr. Davis' proposals to give themselves more support. Mr. Gerke from Embarq has the same concerns as Mr. Davis, but would target support to even smaller areas, the "most rural" portions of a rural wire center.²²³

The premises of these argument are superficially appealing:

- Competition prevents low-cost wire centers from subsidizing high-cost wire centers;
- And competition prevents low-cost portions of a wire center from subsidizing high-cost portions of the same wire centers.

These premises are presented as "facts." It is, therefore, appropriate for those "facts" to be subject to questions.

- To what extent is there real competition in low-cost wire centers that is not present in high-cost wire centers?
- To what extent is there real competition in low-cost portions of "high-cost" wire centers that is not present in high-cost portions of those wire centers?

All we have here is speculation; there are no hard answers to these questions.

²²⁰ Which is not to say that the woefully outdated model used to calculate non-rural carriers' support does not need updating. See Carlson Testimony at 11.

²²¹ Qwest ex parte (May 5, 2008), cover letter at 2, accessible at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6520008139. An earlier Qwest proposal would have increased the USF by \$1.9 billion.

²²² Davis Testimony at 10-11.

²²³ Gerke Testimony at 4. Notably, Embarq itself will likely soon be part of an even larger carrier with its purchase by CenturyTel.

Mr. Gerke used examples of Embarq exchanges in Indiana and Virginia to make his point.²²⁴ In earlier USF discussions, Embarq has used Florida, Kansas Minnesota, Ohio and Texas exchanges as examples of areas that need federal support.

If intracompany support for rural rates were declining, one would expect there to be moves to increase rates in the high-cost wire centers and portions of wire centers in, for example, the states identified by Embarq. That does not appear to be happening. **It may simply be that it is easier for Embarq and the other companies to attempt to convince a national Joint Board, the FCC, and Congress, to assist it with universal service funds than it is for Embarq to seek rate increases in these states for these wire centers and portions of wire centers.** What we also do not see, however, is the other phenomenon one would expect in a competitive environment: There are no moves to reduce carriers' service rates in the urban exchanges where they supposedly face competition.

Focusing for a moment on the Ohio example used by Embarq, the Company complained about the fact that the Embarq Reinersville "high-cost" wire center in rural southeastern Ohio receives no support despite its high modeled cost. But a few facts put the lack of support into context: First, in Ohio, in 2002 Embarq (then known as Sprint) voluntarily "opted-in" to a regulatory plan that capped basic service rates throughout its territory, giving total pricing flexibility for most other services. Subsequently, Embarq has received permission from the Public Utilities Commission of Ohio ("PUCO") to raise its basic service rates in some exchanges, again as a result of supposed competition. Thus Embarq does not appear to be moving toward removing the supposedly unsustainable "cross-subsidy" on the state level. There is, therefore, no reason why the federal USF should pick up the slack.

Second, there appears to be another reason why Embarq does not seem to want to restructure its rates on the state level, in Ohio at least: As calculated from its annual reports to the Public Utilities Commission of Ohio, over the five years 2003-2007, Embarq's earned return on equity was 35.20%. In 2007 alone, Embarq's earned return on equity in Ohio was **42.58%**! Thus Embarq's service offerings in Ohio are a very good investment. Despite this, Embarq currently receives \$500,000 a year in federal high-cost support in Ohio.

²²⁴ Gerke at 5.