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Federal Communications Commission
Office of Secretary

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

In the Matter of:	)	
	)	
Federal-State Joint Board Recommended	)	CC Docket No. 96-45
Decision on Universal Service	)	

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REPLY COMMENTS OF THE UNITED STATES TELEPHONE ASSOCIATION

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January 10, 1997

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SUMMARY

In its reply comments, USTA addresses several specific concerns. The recommended funding base in not competitively neutral, relies on implicit subsidies and is unnecessarily complex. These problems are exacerbated by the fact that there is no provision for carriers to recover the contributions in an explicit, competitively neutral manner. The funding based should be based on inter- and intrastate retail revenues, with no offset for payments to other carriers, and the Commission should require contributions to be recovered through a surcharge on the customer bill reflecting that customer's telecommunications purchases.

The recommendations for rural telephone companies will adversely impact rural customers as well as customers of non-rural companies located in Alaska and insular areas. These provisions must be changed. All telephone companies in Alaska or in an insular area with less than two percent of the Nation's subscriber lines should be exempted from the use of a proxy to determine universal service costs. No rural company should be required to utilize a proxy which does not reflect its actual costs. The calculation of support for rural companies during the transition is severely flawed. It will not maintain current levels of support. Freezing the amount of support will unfairly penalize companies which have recently undertaken substantial plant upgrades or have attempted to expand into unserved or under served areas. Freezing support will force these companies to freeze infrastructure expansions and upgrades. There is no guarantee that 1995 loop costs and 1996 switch costs will be sufficient to meet the operating conditions and financial requirements in subsequent years. There will be no incentive to serve any area with per line costs above the frozen amounts. This works against the universal service objective. The

Commission should adopt USTA's modified calculations for use during the transition.

Limiting support to only primary lines and single line business will reduce current support amounts in high cost areas, which will pose an additional burden to rural carriers. Such a limit will be impossible to administer and to police. The administrative burdens alone outweigh any possible benefit. This recommendation should be rejected.

The formula for determining the size of the fund overstates revenues and understates costs. Thus, the formula will not guarantee sufficiency and will maintain implicit support. The revenue benchmark which includes revenues from access and discretionary services should not be adopted. The corresponding costs are not included in the cost side of the equation. The inclusion of such revenues perpetuates implicit support.

The forward-looking proxy cost model disregards regulatory costs and does not reflect the actual cost of providing universal service. Such an understatement of costs will not provide a sufficient fund. In response to the comments regarding the proxy models, USTA is attaching an economic analysis of the BCM2 and Hatfield models. The proper determination of the cost of providing universal service is the actual cost the incumbent LEC incurs to provide universal service.

In order to preserve current levels of universal service as provided by incumbent LECs, the Commission should require that the terms and conditions of eligibility be the same for all carriers. Carriers that offer universal service solely through the resale of another carrier's services should not be eligible for support.

Inside wire and Internet access are not telecommunications services and should not be included as supported services for schools and libraries.

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The United States Telephone Association (USTA) respectfully submits its reply to the comments filed December 19, 1996 in the above-referenced proceeding.

I. INTRODUCTION.

In its comments, USTA expressed concern that the Joint Board's Recommended Decision was fundamentally deficient because it does not meet the specific requirements of the Telecommunications Act of 1996 that universal service support be explicit, specific, predictable and sufficient. Further, the Decision does not provide for the competitively neutral applications of the rules and does not propose equitable and non-discriminatory contributions. As a result, USTA fears that the Decision will not ensure that customers throughout the Nation will receive just, reasonable and affordable rates. By substantially underestimating the costs of providing universal service and overestimating the revenue benchmark the amount of available high cost support will not be sufficient to permit an incumbent LEC to maintain it network at affordable rates. Insufficient support also will reduce network modernization efforts necessary to provide access to advanced services.[1]

Specifically, the Decision does not address the current explicit and implicit support amount which provides over $21 billion in subsidies to keep local service rates affordable. Over $20 billion of that amount is implicit support currently included in incumbent local exchange carrier (LEC) rates. Competition makes it impossible to maintain that implicit support and other Commission decisions are eliminating that source of subsidy without regard for the impact on universal service. Contrary to the Act, the Joint Board Decision will maintain implicit support.

USTA also objected to the formula recommended to determine the size of the fund. The use of a forward-looking cost proxy model will not ensure that the fund is sufficient because it does not reflect the actual costs of the defined universal services. So long as incumbent LECs have an obligation to make investments to provide service at a constrained price, regulators have an obligation to assure the opportunity to recover the costs of those investments. The use of revenues from access and other discretionary services maintains implicit support for universal service contrary to the requirements of the Act.

Basing contributions to the universal service support fund on a carrier's gross income net of its payments to other carriers is neither equitable nor competitively neutral. It also maintains implicit subsidies.

Further, the Decision is not competitively neutral because it does not require other carriers to meet the same terms and conditions of providing the defined universal service package that incumbent LECs must meet.

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[1]See, Pacific Telesis at 3-5.

All rural telephone companies should receive the same amount of support that is currently received during the transition and should have an opportunity to seek adjustment when needed. Freezing the amount of support is not warranted and will produce a severe, detrimental impact on those companies and their customers.

USTA expressed concern that the significant changes in the Lifeline program were not sufficiently justified and opposed the recommendations to prohibit disconnection of local service for non-payment of toll and to prohibit security deposits if customers accept toll blocking. USTA urged the Commission to require states to set means-tested eligibility criteria and to prohibit self-certification. Finally, USTA requested clarification of certain provisions of the Decision pertaining to the educational and rural health care assistance proposals. Specifically, USTA questioned the inclusion of inside wire and Internet access as a supported service for eligible schools and libraries. USTA will discuss some of these issues in its reply comments.

II. THE RECOMMENDED FUNDING BASE IS NOT COMPETITIVELY NEUTRAL.

The recommended funding base is not competitively neutral, relies on implicit subsidies and is unnecessarily complex.[2] The inequities inherent in the recommendation to generate the necessary funding is compounded by the fact that there is no provision for carriers to recover the contributions to the funding base from customers in an explicit, competitively neutral manner. These problems can be resolved by the Commission if the funding is based on both inter- and intrastate retail revenues and if the Commission specifies that contributions be recovered through

[2]USTA at 17-20, GTE at 32-33.

through a surcharge on the customer bill reflecting that customer's telecommunications purchases.[3]

A. The Commission Has the Authority to Use Both Inter- and Intrastate Revenues as the Funding Base.

Many parties agreed with USTA that the contribution base for universal service support should include intrastate as well as interstate revenues in order to recognize the fact that all customers and services, both inter- and intrastate, benefit from universal service.[4] In addition, a broadly-based funding base, as contemplated under Sections 254(b)(4) and (d) of the Act, will be competitively neutral, sufficient and equitable.[5] For example, if all support and discount requirements associated with intrastate services were left to the individual states to recover, the rural states with the highest costs and the fewest customers would bear the majority of the burden of supporting universal service. As a result, it would be extremely difficult for the Commission to meet the principle that rural and urban rates must be reasonably comparable.[6]

Use of inter- and intrastate revenues will also reduce the administrative complexity of the funding mechanism and and the need for jurisdictional determinations.[7]

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[3]USTA at 22-23.

[4]Sprint at 7-10, Roseville at 2-3.

[5]Competition Policy Institute at 6-11, PageNet at 13-14, Alaska PUC at 10-11, NCTA at 28-31, LCI at 3-5.

[6]USTA at 17-18, RTC at 30-31,

[7]Texas PUC at 11-13, Vermont at 3-5Time Warner at 7-10, WorldCom at 39-43, AT&T at 4-8, MCI at 10-11.

There is no economic rationale provided by any commenting party to support the Joint Board's recommendation that if inter- and intrastate revenues are used as the funding base, the subscriber line charge (SLC) should be reduced. In fact, many parties agreed with USTA that such a recommendation represents bad economic policy which is contrary to previous Joint Board and Commission decisions and should be rejected.[8] Until the issue of common line recovery is addressed in a manner which is economically rational either as part of universal service or access reform and adopts an explicit common line recovery mechanism, USTA and other parties supported the Joint Board's recommendation to permit flat-rated per line recovery of carrier common line charges.[9]

B. Contributions Based on Gross Revenues Net of Payments to Other Carriers is Contrary to the Act's Requirement that Contributions Be Equitable and Non-Discriminatory.

In order to meet the requirements of the Act that contributions be equitable and non-discriminatory as well as to avoid unnecessary administrative complexity, USTA and other parties proposed that contributions be based on retail revenues.[10] Use of gross revenues net of payments to other carriers would unfairly discriminate against carriers using their own facilities

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[8]USTA at 18-19, Citizens Utilities at 20-22, GTE at 40-41, Pacific Telesis at 29, U S WEST at 21-23, AT&T at 12-13, Frontier at 8-9, MCI at 14, Bell Atlantic at 22, WorldCom at 36, Sprint at 15-16, AirTouch at 14-18, Ad Hoc at 22-28.

[9]USTA at 20-22, Pacific Telesis at 30, Citizens for a Sound Economy at 14.

[10]USTA at 15-16, SNET at 3-4, AT&T at 9, Sprint at 6-7, Bell Atlantic at Attachment, California PUC at 13, Vermont at 11, TCA at 8, IXC Communications at 4, BellSouth at 13, GTE at 37-38, Minnesota Independent Coalition at 37-39, Bell Atlantic/NYNEX Mobile at 11.

and allows non facilities-based carriers to avoid contributing to universal service.[11] As a result the majority of the burden of supporting universal service would again fall on the incumbent LECs, who also will be investing in the network equipment to provide universal service and offering those facilities to their competitors. In addition, as explained by Vermont, the use of retail transactions would be competitively neutral and would ensure that wholesale transactions are economically efficient. If the Commission adopts the Joint Board recommendation, each wholesale transaction will include some revenue to compensate the carrier for its contribution to universal service. Use of retail transactions will reduce administrative burdens because intervening transactions will not have to be monitored since only the final carrier would contribute and wholesale prices could be established without regard to universal service charges.[12]

C. The Commission Must Permit Explicit Recovery of Universal Service Contributions Through a Mandatory Customer Surcharge.

Many commenting parties shared USTA's concern that the Joint Board failed to address the issue of the recovery of universal service contributions. Many parties agreed that a mandatory customer surcharge is the only way to ensure that recovery is explicit, sufficient and predictable in accordance with the Act.[13] In addition, failure to permit recovery through a

[11]SBC at 14-18.

[12]Vermont at 11.

[13]USTA at 22-23, Ameritech at 30-31, Bell Atlantic at 8, AT&T at 8-9, LCI at 13-14, Sprint at 10, WorldCom at 39-43, CompTel at 14-17, California PUC at 13-15, Vermont at 10, Wyoming at 13, California Department of Consumer Affairs at 38, PageNet at 15, TCA at 8-9.

customer surcharge will not further the principle of competitive neutrality since non-regulated carriers will be able to pass through the costs of their contributions to their customers while incumbent LECs, whose rates are constrained, will not.[14] A customer surcharge does not mean that customers necessarily will pay more for service, since as implicit support is removed from rates and recovered through an explicit fund on a revenue-neutral basis, those rates will be reduced. As Congress and several members of the Joint Board recognized, customers will ultimately pay for universal service and they should be made aware of their contribution to the national goal of universal service.[15]

III. THE RECOMMENDATIONS REGARDING RURAL TELEPHONE COMPANIES MUST BE CHANGED IN ACCORDANCE WITH USTA'S COMMENTS TO AVOID ADVERSE IMPACTS ON RURAL CUSTOMERS.

The recommendation for rural telephone companies is unnecessarily restrictive and will adversely impact rural customers as well as customers of non-rural companies located in Alaska and insular areas. The Recommendation must be changed as specified in USTA's comments.[16]

All telephone companies in Alaska or in an insular area with less than two percent of the Nation's subscriber lines should be exempted from the use of a proxy to determine universal service costs. As Puerto Rico Telephone Company points out, it is not a rural company as defined in the Act, but it is not included in any of the proxy models discussed in this proceeding.

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[14]GTE at 33-37.

[15]SBC at 12, MFS at 12.

[16]USTA at 25-30.

Since it is the only carrier serving Puerto Rico, its customers should receive current levels of universal service funding.[17]

In addition, no rural carrier should be required to utilize a proxy model which does not reflect its actual costs.[18] Any reduction in support for rural telephone companies will threaten the maintenance of current affordable rates for rural customers as well as the ability of rural telephone companies to provide the necessary network upgrades to maintain high quality service or to provide access to advanced services. Rural telephone companies have different cost characteristics and different customer bases. Their dependence on explicit, predictable, sufficient funding is critical to their ability to maintain current levels of universal service. The appropriate proxy models should be available before these companies are forced to transition to a proxy cost model.[19] As the record clearly indicates, there is no model which currently can accurately predict the costs incurred by rural telephone companies.[20]

Finally, the calculation of support for rural companies during the transition is severely flawed. It will not maintain the status quo for these companies. Instead, it will impair their abilities to maintain current universal service and will provide a disincentive to continue infrastructure upgrades.[21]

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[17]Puerto Rico Telephone Company at 19-24.

[18]RT Communications at 7.

[19]ALLTEL at 8, TDS/Century at 15-16, TCA at 5.

[20]GVNW Inc. at 12, Harris, Skrivan at 3-4, Rural Telephone Coalition at 4-6.

[21]The special circumstances of average schedule companies must be accounted for when considering the transition and post-transition quantification of universal service costs.

Freezing the amount of support will unfairly penalize companies which have recently undertaken substantial plant upgrades or have attempted to expand into unserved or under served areas.[22] Freezing support during the transition will, in effect, force rural telephone companies to freeze infrastructure expansions and upgrades because there is no guarantee that the 1995 loop costs or 1996 switching costs will be sufficient to meet the operating conditions and financial requirements facing rural telephone companies in the years 1998 to 2003.[23] There will be no incentive for rural companies to serve any area with per line costs above the frozen amounts, thus severely threatening the objectives of universal service articulated in the Act.

Limiting support to only primary, single residence lines and single line business will also be disastrous for rural development as well as the maintenance of universal service in rural areas.[24] USTA provides an alternative calculation which will ameliorate these detrimental impacts. USTA urges the Commission to adopt the modifications discussed in its comments.

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[22]R T Communications at 7, Tularosa Basin Telephone Company at 6-7, Rural Telephone Coalition at 11-13.

[23]Rural Alliance at 6-8, Western Alliance at 24-30, Small Western LECs at 8-11.

[24]Western Alliance at 15-17, Silver Star Telephone Company at 4, Rural Telephone Coalition (RTC) at 18-21, John Staurulakis at 16-22.

IV. THE FORMULA FOR DETERMINING THE SIZE OF THE UNIVERSAL SERVICE FUND OVERSTATES REVENUES AND UNDERSTATES COSTS THEREBY CREATING A FUND WHICH IS NOT SUFFICIENT AND WHICH MAINTAINS IMPLICIT SUPPORT.

As pointed out by USTA and many other parties, the recommended formula to determine the amount of universal service support overstates revenues and understates costs.[25] This will result in a fund which is not sufficient and which maintains implicit support in contravention to the Act.

A. The Revenue Benchmark Includes Revenues from Access and Discretionary Services Maintaining Implicit Support for Universal Service.

Despite the fact that competition and Commission regulations are eliminating the availability of current implicit sources of revenues to support universal service, the Joint Board included such revenues in the revenue side of the equation to determine the universal service support requirement. USTA and other parties oppose the adoption of the benchmark recommended by the Joint Board which includes revenues from access and discretionary services.[26]

As MCI points out, relying on average revenues maintains the current implicit subsidy flows. MCI states that this is contrary to the Act's requirement that support be explicit and is not

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[25]USTA at 9-10.

[26]USTA at 10-11, MCI at 8-10, Pacific Telesis at 16-17, Roseville Telephone Company at 13-15, Citizens Utilities at 24-25, SBC Communications at 34-35, GTE at 19-24, Sprint at 18-19, Texas PUC at 6, California Small Business Association at 3-4, RTC at 25-26.

competitively neutral.[27] As explained by ALLTEL, with a revenue benchmark the fund size can be manipulated by including revenues which are not related to the costs of providing universal service thereby artificially deflating the size of the fund.[28] The calculation of universal service support should not be so readily arbitrary.

In addition, the inclusion of revenues from access and discretionary services will create a mismatch in the equation because the costs of such services are not included in the determination of universal service costs. Universal service support should only be determined by comparing the actual costs of providing universal service with the revenues received for those services. Thus, the only revenues which should be included in the equation are the revenues associated with the provision of the services included in the definition of universal service.

Finally, the Commission should recognize that the benchmark establishes the mechanism for delineating federal and state responsibility for universal service support. The federal fund supports forward-looking proxy costs which exceed the revenue benchmark under the Joint Board recommendation. The revenue benchmark recommended by the Joint Board is based on intrastate rates that have implicit support embedded in those rates. If the federal fund does not permit the elimination of implicit support, the states are responsible for establishing state mechanisms that eliminate intrastate implicit support.[29] USTA believes that this could be best

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[27]MCI at 9-10.

[28]ALLTEL at 9. See, for example AT&T at 7 and Time Warner at 22-23 proposing to include Yellow Pages revenues and revenues from second lines in the calculation. Such proposals would result in a carrier specific benchmark, not the nationwide benchmark intended by the Joint Board.

[29]BellSouth at 6.

accomplished if the Commission adopted a benchmark based on one percent of median household income at a county level.

B. The Forward-Looking Proxy Model Disregards Regulatory Costs and Does Not Reflect the Actual Cost of Providing Service Thus is Not Sufficient as Required by the Act.

As USTA and many other parties noted, the use of a forward-looking proxy model disregards the costs imposed by regulatory obligations, costs which incumbent LECs must be provided an opportunity to recover, and does not reflect the actual cost of providing service because it is purely hypothetical.[30] The use of a forward-looking cost proxy to determine the amount of support will not provide sufficient support and will artificially and arbitrarily reduce the overall size of the fund. As GTE points out, because the Joint Board did not make any provision to validate the proxy cost against any actual, real-world cost, the cost estimate will be in error and the fund will be insufficient.[31] The proper determination of the cost of providing universal service is the actual cost the incumbent LEC incurs to provide universal service.

Further, there is nothing in the record before the Joint Board to support allegations that the costs incurred by incumbent LECs to provide universal service are not reasonable. Incumbent LECs have assumed obligations to serve all customers in return for the opportunity to recover those costs. Regulators cannot simply abandon their obligations. To do so would constitute an impermissible regulatory takings.

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[30]USTA at 12-15, Bell Atlantic at 12-15, Pacific at 6, SBC at 23-26, General Services Administration at 4-7.

[31]GTE at 25-32.

Proxy cost models should only be used to geographically disaggregate actual costs. A number of commenting parties addressed the proxy models. USTA is supportive of the industry efforts to combine features of the BCM2 and CPM models to create a proxy which will more closely reflect actual costs at a targeted geographic area than the Hatfield model. Appended hereto is an economic evaluation of two proxy cost models, BCM2 and Hatfield 2.2.2, prepared by Dr. Laurits Christensen. Dr. Christensen analyzed the economic implications of the criteria recommended by the Joint Board for evaluating the reasonableness of proxy cost models. He found that the criteria are overly-restrictive in that they call for an estimate of cost that is lower than could be realistically attained by either an efficient incumbent or an efficient entrant in the presence of an incumbent. The efficient incumbent could never economically replace all of its existing capital and re-engineer its entire network to toally emoby state-of-the-art technology, nor could an entrant instantly construct a network to serve all potential cutomers, much less attract encough customers to efficiently utilize such a network. He concludes that the BCM 2 has distinct advantages over the Hatfield model.

Several parties comment that current charges do not reflect economic cost as measured by the Hatfield model.[32] The record is clear that the Hatfield Model Version 2.2.2 is fundamentally flawed and completely unacceptable as a measure of the costs of providing universal service.[33] Thus, any cost estimates based on the Hatfield model are at best, suspect, and more than likely,

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[32]MCI at 15-16, AT&T at 12.

[33]William E. Taylor, "Not the Real McCoy: A Compendium of Problems With the Hatfield Model", USTA Ex Parte Filing, October 16, 1996. See, also, SBC at 26-29 and Attachment A.

inaccurate.

V. THE TERMS AND CONDITIONS OF ELIGIBILITY MUST BE THE SAME FOR ALL CARRIERS.

Incumbent LECs have already committed to carrier of last resort, price regulation, earnings constraints, service quality and provisioning requirements. Other providers of universal service should be required to meet the same requirements currently imposed on the incumbent LEC in the same serving area in order to receive universal service support to ensure that eligibility is competitively neutral. If not, the current level of universal service will not be sustained, much less advanced, contrary to the intent of the Act.[34] This should include a requirement that a stand-alone price for universal services be offered.

In addition, the Commission should clarify under what circumstances, if any, resellers should be eligible for support. Contrary to the comments of MFS, carriers that offer universal service solely through resale of another carrier's services should not be eligible for support.[35] Such an opportunity would provide a windfall to resellers by permitting them to receive support for already discounted services.

VI. UNIVERSAL SERVICE SUPPORT SHOULD BE AVAILABLE FOR ALL LINES.

As noted earlier, the limiting universal service support to single line/primary residence and single line business will create a hardship for rural telephone companies and their customers.

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[34]USTA at 23-25, GTE at 46-50, SBC at 18-20.

[35]MFS at 16.

However, in addition to the detrimental impact on rural telephone companies, such a limitation will create enormously burdensome administrative and monitoring difficulties which cannot be resolved because there is no practical or efficient way to segregate such lines.[37] Given that the burdens obviously outweigh any possible benefits, this recommendation should not be adopted.

VII. THE RECORD SUPPORTS EXCLUDING INSIDE WIRE AND INTERNET ACCESS AS A SUPPORTED SERVICE FOR SCHOOLS AND LIBRARIES.

The record established in the comments supports the conclusion reached by USTA, members of Congress and at least one Joint Board member that inside wire and Internet access are not telecommunications services and are not within the scope of the universal service support mechanism for schools and libraries.[38] Because Internet access and inside wire are not telecommunications services and the providers of both are not necessarily telecommunications carriers, there is no basis for including either as part of the universal service support mechanism.

VIII. CONCLUSION.

The commenting parties agree that the requirements of the Act that universal service

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[37]USTA at 30-31.

[38]USTA at 34-35, ALTS at 17-18, ALLTEL at 5, California PUC at 17, Ameritech at 18-19, MFS at 30, BellSouth at 19-28, Cincinnati Bell at 13-14, AirTouch at 18-21.

VIII. CONCLUSION.

The commenting parties agree that the requirements of the Act that universal service support mechanisms be specific, predictable, sufficient and explicit and that the contributions be assessed on an equitable and non-discriminatory basis must be achieved. In addition, the principle of competitive neutrality must be adopted and implemented. USTA has analyzed the Recommendation in light of those principles and has suggested ways in which the Recommendation can be improved to reflect those principles. USTA urges the Commission to address USTA's concerns and to adopt the modifications proposed by USTA.

Respectfully submitted,

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January 10, 1997

EXECUTIVE SUMMARY

Economic Evaluation of Proxy Cost Models for Determining Universal Service Support

Christensen Associates
January 9, 1997

In their Recommended Decision in the FCC's Universal Service proceeding, CC Docket 96-45, the Joint Board stated that a properly crafted forward-looking proxy cost model could be used to determine universal service support levels, but that none of the models submitted thus far was satisfactory. Christensen Associates has been retained by the United States Telephone Association to provide an economic evaluation and comparison of two proxy cost models submitted in CC Docket 96-45: the Benchmark Cost Model 2 ("BCM2"), sponsored by US West and Sprint; and the Hatfield Model Version 2.2, Release 2 ("HM2.2.2"), sponsored by AT&T and MCI.

We have examined the economic implications of the criteria recommended by the Joint Board for evaluating the reasonableness of proxy cost models. The common interpretation of these criteria are stringent in the sense that they prescribe an estimate of cost that is lower than could be realistically attained by either an efficient incumbent or an efficient entrant in the presence of an incumbent. This follows because the efficient incumbent could never economically replace all of its existing capital and re-engineer its entire network to totally embody state-of-the-art technology, nor could an entrant instantly construct a network to serve all potential customers (much less attract enough customers to efficiently utilize such a network).

EXECUTIVE SUMMARY

Notwithstanding the stringency of the common interpretation the Joint Board criteria, we have based our evaluation on the spirit of all of the Joint Board's criteria, namely, the specification of a model that realistically represents forward-looking costs. We give substantial emphasis to the criteria requiring that a model be verifiable and readily modifiable.

Neither of the forward-looking proxy cost models that we have considered fully satisfies the criteria specified by the Joint Board. Each model contains some specifications that are unsupported and unrealistic. We do not attempt to judge which model has the more realistic engineering assumptions and specifications, but we do quantify their impact on model results. In general, our approach is to document shortcomings of both models, and to highlight the differences between the specifications that are most important in terms of driving differences in results.

The most striking difference between BCM2 and HM2.2.2 is that HM2.2 2 makes no attempt to estimate costs for non-Bell service areas. Given that non-Bell service areas are often relatively higher cost areas, this is a major flaw that needs to be rectified. In addition to estimating costs for only Bell-served areas, the Hatfield model does not allow the computation of results below broad study areas, making it impossible to identify specific high-cost areas.

Another major difference is that each model makes an unsupported assumption regarding the sharing of structures with non-telephone utilities. BCM2 assumes that there is no sharing with other utilities, while HM2.2.2 assumes that other utilities always utilize two-thirds of the capacity of the entrant's structures so that the entrant only incurs one-third of the costs. There may be occasions where structure sharing is appropriate. However, the HM2.2.2 default assumption that structure sharing always occurs and that the efficient entrant will always incur only one-third of all structures-related costs is not reasonable.

A third major difference between the two models is the treatment of overhead and fill factors. HM2.2.2 arbitrarily assumes a 10% overhead factor, whereas overhead and fill factors in BCM2 are based on actual ARMIS data.

We have run the BCM2 and HM2.2.2 models for five states. The results differ widely. We illustrate the differences in monthly costs per line in Table E.1.

Table E.1
Average Monthly Cost Per Line
Benchmark Cost Model 2 and Hatfield Version 2.2, Release 2
Default Parameter Settings

	Arkansas	California	Texas	Utah	Washington
BCM2	$40.97	$24.50	$29.98	$31.21	$29.41
HM2.2.2	$21.59	$14.86	$16.80	$20.43	$16.89
Difference	$19.38	$9.64	$13.18	$10.78	$12.52

Although the disparities in Table E.1 are large, we have determined that for all five states most of the disparity, if not all, is accounted for by the three differences between the two models that we have discussed above. The proportion of the difference explained by these three factors is shown in Table E.2, ranging from 83 percent for Arkansas to 109 percent for Utah.

Table E.2
Proportion of Difference Between BCM2 and HM2.2.2 Results Explained by Three Major Factors

Arkansas	California	Texas	Utah	Washington
83%	99%	94%	109%	101%

The removal of these three major differences between the two proxy cost models move their results surprisingly close to each other. This suggests that the surest path to a model that will be satisfactory to the Joint Board and the FCC is through a process that will focus on establishing a few key specifications that drive the proxy cost model results.