DOCKET FILE COPY ORIGINAL

RECEIVED
JAN 24 2000
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

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

In the Matter of	)	
	)	
Price Cap Performance Review for Local Exchange Carriers	)	CC Docket No. 94-1
	)	
	)	
Access Charge Reform	)	CC Docket No. 96-262

REPLY COMMENTS OF THE UNITED STATES TELECOM ASSOCIATION

Its Attorneys:

Lawrence E. Sarjeant
Linda L. Kent
Keith Townsend
John W. Hunter
Julie E. Rones

1401 H Street, NW, Suite 600
Washington, D. C. 20554
(202) 326-7248

January 24, 2000

No. of Copies rec'd 0+4
List ABCDE

TABLE OF CONTENTS

SUMMARY i

I. THE RECORD DOES NOT PROVIDE SUFFICIENT SUPPORT TO ADOPT EITHER OF THE PROPOSED STAFF STUDIES 2

A. No Carrier Supports the Imputed X Staff Study and the Commission Should Reject this Approach as it Represents a Return to Traditional Cost-Plus Regulation. 4

B. The 1999 Staff Study is Replete With Errors and Cannot be Revived By AT&T Using a Faulty "Indirect" TFP Methodology to Determine an Interstate Only TFP Growth. 5

C. The Staff Studies are Based on Incorrect Assumptions About Price Cap LEC Earnings. 9

D. The Commission Should Utilize the 1997 Model as Updated by USTA in 1998 for the Historical Period and Either the 1997 Model Updated by USTA or the USTA TFPRP Updated Herein Should be Adopted for the Future. 11

II. ARGUMENTS SUPPORTING THE CPD ARE FLAWED 14

III. CONCLUSION 16

ATTACHMENT 1
ATTACHMENT 2
ATTACHMENT 3
ATTACHMENT 4

SUMMARY

The record does not support the adoption of the imputed X staff study. No carrier supported that option as both local exchange and interexchange carriers recognized that it is merely rate of return regulation in disguise. No carrier supports the abandonment of incentive-based regulation in favor of a return to traditional cost plus regulation. Further the record does not support the adoption of the 1999 staff study. No party provided any justification for the errors and uneconomic applications that render its results invalid.

In a paper attached hereto, Dr. William Taylor of the National Economic Research Associates once again refutes AT&T's attempt to resurrect its indirect or historical price to estimate interstate TFP growth. As Dr. Taylor explains, no matter how hard AT&T tries or what sleight of hand it employs, the fact is that TFP growth for interstate services is not defined for a multiproduct firm whose production function is not severable. What AT&T purports to measure simply does not exist. The Court of Appeals agreed that interstate productivity is neither measurable nor economically defined. The Commission should put this tired argument to bed once and for all, as it is clear that AT&T's methodology will not produce price changes that emulate those in a competitive market. Dr. Taylor also explains that Ad Hoc's cost of capital sensitivity analysis does not refute the fact that LEC opportunity costs are different than changes in bond rates. No party disputes the fact that the proposed measure of cost of capital is uneconomic. Dr. Taylor confirms Professor Gollop's earlier analysis that minutes should not be used to calculate local service output since it does not reflect the source of revenues.

Dr. Taylor also explains that both AT&T and Ad Hoc use several flawed methodologies that purport to estimate the effect that the elimination of sharing had on productivity growth. They both derive faulty conclusions from a SPR study by misinterpreting that study. The CPD

has served its purpose and now is only serving to double count the benefits of the elimination of sharing. It should be eliminated.

USTA also provides evidence that both staff studies are based on incorrect assumptions about the level of price cap LEC earnings. Both serve to punish carriers for the fact that price cap regulation is working to provide incentives to cut costs and to reduce prices for customers. USTA shows that earnings improvements are derived from efficiency gains, not higher profit margins. The unjustified earnings adjustments proposed in the staff studies will reduce investment. The unsupported high X-Factors proposed by AT&T, MCI and Ad Hoc will not allow the same levels of investment to continue.

The Commission should adhere to the Court decision and utilize the 1997 TFP model as updated by USTA with 1996 and 1997 data for the remand period. On a going forward basis, the Commission should continue to utilize a TFP model, either the 1997 model as updated by USTA with 1998 data or the USTA TFPRP.

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

In the Matter of	)	
	)	
Price Cap Performance Review for Local Exchange Carriers	)	CC Docket No. 94-1
	)	
	)	
Access Charge Reform	)	CC Docket No. 96-262

REPLY COMMENTS
OF THE
UNITED STATES TELECOM ASSOCIATION

The United States Telecom Association (USTA) respectfully submits its reply to the comments filed January 7, 2000 in the above-referenced proceeding. In its comments, USTA urged the Commission to utilize the 1997 TFP model as updated by USTA in 1998 to establish the X-Factor for the historical remand period in accordance with the decision of the U.S. Court of Appeal for the District of Columbia Circuit. On a going forward basis, USTA urged the Commission to continue to utilize a TFP model, either the 1997 TFP model as updated by USTA in 1999 or the USTA TFPRP as updated herein, based on a five year rolling average. USTA submitted economic evidence that neither the 1999 staff study nor the imputed X staff study can be used to calculate an X-Factor, either for the historical period or on a going-forward basis. Both studies are fatally flawed in that they are not based on economically meaningful principles and are arbitrarily biased to increase the X-Factor. In addition, USTA urged the Commission to eliminate the Consumer Productivity Dividend (CPD) and to reject any growth factors in the price cap formula.

As will be discussed in detail below, none of the carriers filing comments supported the imputed X staff study as both local exchange carriers and interexchange carriers recognize that the imputed X is merely rate of return regulation in disguise. No carrier supports the

abandonment of incentive-based regulation in favor of a return of traditional cost-plus regulation. In its comments, USTA provided the Commission with an economic analysis of the 1999 staff study performed by Professor Frank Gollop of Boston College which listed the problems of that study which renders its results invalid. No commenting party was able to provide any independent rationale to validate the 1999 staff study other than the fact that it produced a higher X-Factor. Of course, the Court rejected such a results-oriented approach. Professor Gollop did provide a corrected version that is consistent with economic principles. The results are comparable with both the 1997 TFP model and the USTA TFPRP.

In a paper attached hereto, Dr. William Taylor of the National Economic Research Associates demonstrates the flaws in AT&T's interstate-only TFP methodology and disputes AT&T's and Ad Hoc's arguments supporting an increase in the CPD. He also examines Ad Hoc's cost of capital sensitivity analysis and shows that it does not refute the fact that LEC opportunity costs are different than changes in bond rates. He explains that minutes should not be used to calculate local service output in the 1999 staff study, confirming Professor Gollop's earlier analysis, and disputes Ad Hoc's argument regarding Hedonic changes in capital inputs.

I. THE RECORD DOES NOT PROVIDE SUFFICIENT SUPPORT TO ADOPT EITHER OF THE PROPOSED STAFF STUDIES.

As USTA explained in its comments, there is no basis for the Commission to adopt either of the proposed staff studies. Both studies abandon the Commission's prior requirement that the X-Factor be economically meaningful. Both rely on a flawed and uneconomic measure of cost of capital that fails to consider all the elements that constitute an appropriate estimate of the competitive market cost of capital.[1] Both represent unexpected changes in the price cap plan that the Commission itself acknowledges are detrimental to the incentives of price cap regulation to

[1] USTA Comments, Affidavit of Dr. JamesVander Weide at Attachment 5.

reduce costs to the maximum extent possible. Both represent a failure on the part of the Commission to allow the price cap LECs an opportunity to incorporate the incentives into their business and investment planning. Both represent a failure on the part of the Commission to allow these carriers to achieve the maximum benefits of price cap regulation because the parameters of the plan are always changing based on future results. Both undercut the credibility of the Commission by signaling that the Commission is unwilling to abide by the terms of the price cap contract it adopted in 1997 resulting in a dulling of incentives and a loss of future credibility. Both go far beyond the scope of the Court remand.

Further, as will be discussed below, there is no need for the overhaul of price cap regulation that would result if either of the staff studies were to be adopted. The earnings levels of the price cap LECs has not been excessive as alleged in the FNPRM and by interexchange carriers. Neither the Commission nor the IXCs provide any factual support to justify the rate of return-based adjustments contained in the staff studies.

The Commission's failure to commit to the 1997 model, without the arbitrary manipulation necessary to achieve the resulting decreases in access prices demanded by AT&T, is one reason why some carriers have sought to develop their own regulatory plan, the CALLS proposal. The CALLS plan is a voluntary regulatory plan designed to provide certainty over a five-year period. USTA supports these efforts to undertake the Commission's responsibility to develop policies that benefit consumers and move toward the implementation of the Telecommunications Act of 1996. USTA is well aware that if the CALLS proposal is approved, there is no need to adopt any of the ill advised and unnecessary proposals advanced by the Commission.

A. No Carrier Supports the Imputed X Staff Study and the Commission Should Reject this Approach as it Represents a Return to Traditional Cost-Plus Regulation.

The comments are in accord that the imputed X staff study would signal the end of incentive regulation and the reimposition of traditional cost plus regulation. No party disputes the fact that such an outcome was not contemplated by the Court decision. No party denies the fact that the imputed X does not represent a rational regulatory policy for the transition to a competitive marketplace. Every party recognizes that the imputed X contradicts the Commission's own arguments before the Court of Appeals.

AT&T, which originated the historical revenue approach from which the imputed X appears to have been regurgitated, notes that the imputed X would be harder to administer than a total factor productivity (TFP) approach. AT&T states that it "does not believe the Commission should adopt an entirely new methodology for calculating X-factors in this proceeding."[2] MCI only discusses the imputed X as a check to support a total company TFP approach.[3] This, of course, begs the question why it would be good policy to use a discredited approach to verify anything. Sprint states that "the proposals offered in the FNPRM – especially the imputed X study – will not only fail to move the industry to cost-based rates, but will actually result in a giant step backwards."[4] Sprint explains that the imputed X is quite simply rate of return regulation and appears incredulous that the Commission would be promoting the same idea the Commission expressly rejected in 1997. "Application of the imputed X study would use a rate-of-return-based calculation to exacerbate the problems created by the current price cap regime, as

[2] AT&T at 12.
[3] MCI at 13. *See, also,* Ad Hoc at i.
[4] Sprint at 4.

well as deny the efficiency enhancing benefits that price caps promised. Such application should be rejected for the same reasons as its predecessor and more."[5]

The only party supporting the imputed X staff study, GSA, bases its support on the fact that the Commission only needed eight pages to describe it.[6] GSA's flippant remarks may demonstrate, at best, a sense of humor, but do not serve either as the rational explanation the Court is seeking in the remand or as the basis for serious decision-making on the most significant financial aspect of price cap regulation.

Dr. Taylor outlined the problems of the imputed X study in Attachment 1 of USTA's comments. It relies on accounting data as well as the separation of common costs that is directly contrary to the Commission's own stated objectives. It eliminates all incentives of price cap regulation and reinstates traditional cost plus regulation. It attempts to estimate an interstate-only X that is not economically meaningful. It is based on a false assumption that interstate earnings have exceeded those in a competitive market. It incorrectly adds stimulated revenues without any associated costs resulting in an upward bias. The record does not provide any rational explanation for the adoption of the imputed X staff study and it must, therefore, be rejected.

B. The 1999 Staff Study is Replete With Errors and Cannot be Revived By AT&T Using a Faulty "Indirect" TFP Methodology to Determine an Interstate Only TFP Growth.

At Attachment 3 of USTA's comments, Professor Gollop analyzed the 1999 staff study which changed practically every variable in the 1997 TFP model in a manner designed to increase the X-Factor. He pointed out that all of the changes: the inappropriate application of the Moody's Baa bond rate as a proxy for LEC opportunity costs, the incorrect application of the

[5] *Id.* at 5.

external rate of return to the LECs' cost of capital, the inappropriate use of external rates of return that ignore the actual revenues, income taxes, material expenses and operating expenses of LECs, the failure to model LEC and U.S. nonfarm productivity accounts on a symmetrical basis, the inappropriate exclusion of labor severance payments from labor expenses, the improper use of local DEMs to measure output, the use of an incorrect U.S. nonfarm business input price series that does not correspond to the series produced by the Bureau of Labor Statistics and the continued reliance on inconsistent data all lead to an upward-biased X-Factor.

Given that result, it is not surprising that AT&T, MCI and Ad Hoc support the 1999 staff study. However, they compound the arbitrary nature of the study by attempting to use it to advance, once again, an interstate-only TFP methodology. In fact, AT&T has taken the rate of return aspect of the imputed X study and imposed it on the 1999 study so that the 1999 study will provide no incentives to cut costs. After more than ten years of price cap analysis, debate and decisions, there is one fact that should be clear to all parties, the Commission and the Court of Appeals: there is no economically meaningful definition of an interstate-only X-Factor and no economically defensible methodology to estimate it. Try as it might, AT&T will never be able to produce an economically respectable productivity study for a subset of services in the telecommunications industry where the production process is not separable by service. As Dr. Taylor explains in his paper at attachment 1, there is no interstate X-Factor.

AT&T again relies on its indirect or historical price to estimate interstate TFP growth. Dr. Taylor examines AT&T's study and finds, once again, that the interstate TFP growth cannot be defined and that interstate revenues and costs cannot be meaningfully measured. He analyzes AT&T's calculations and shows, not surprisingly, that despite its attempts at sleight of hand, AT&T's methods depend upon uneconomic separability and arbitrarily assign shared, fixed and

---

[6] GSA at 12.

common costs to each jurisdiction. He explains that when output price data are adjusted to keep earnings constant across the historical period, as AT&T suggests, accounting costs and revenues must be assigned to individual services and therein lies AT&T's fundamental economic error. AT&T cannot escape the undeniable economic truth that the production function is not separable and therefore an interstate-only productivity calculation is impossible. Shared fixed and common costs cannot be assigned to the interstate and intrastate jurisdictions in any economically meaningful way. AT&T erroneously assigns a portion of the LECs' fixed costs to interstate services and derives an arbitrary estimate of interstate TFP growth. Contrary to AT&T's assertion, the problem is not simply separating interstate and intrastate costs for the TFP calculations. The problem is that TFP growth for interstate services is not defined for a multiproduct firm whose production function is not separable. What AT&T purports to measure does not exist.

In addition to the economic error of attempting to use the indirect method to estimate an interstate-only X-Factor, Dr. Taylor identifies another general weakness in the indirect method. Under AT&T's approach, prices are adjusted in each period to keep measured economic earnings constant. Errors in measuring prices will have a greater impact on TFP growth as measured by price. In fact, this was the very reason the Commission rejected this approach in 1997 because it found that TFP based on quantity indices of outputs and inputs was a more accurate measure of LEC productivity than price changes.[7] Further, AT&T is obviously using a different price index that completely invalidates AT&T's results even before the erroneous rate-of-return adjustments to revenues are performed.

AT&T also once again suggests that the Commission reinitialize the new X-Factor. The Court reiterated the Commission's concern that reinitialization could harm productivity

incentives because of the perception that the Commission's regulatory policies lack constancy. The Court rejected MCI's appeal regarding reinitialization because it would only serve to aggravate that perception and would impair the supposed incentive advantages of price caps, which the Court explained derive from firms' supposing that their efficiencies will not come back to haunt them. The Court is correct and AT&T's suggestions regarding reinitialization should be rejected.

Dr. Taylor also addresses several other issues mentioned in comments. He explains that Ad Hoc's cost of capital sensitivity analysis does not refute the fact that using either Moody's Aaa, Moody's Baa, or ten year and thirty year government securities as the cost of capital is improper because it does not adequately represent the market definition of the market cost of capital.[8] The best measure of opportunity cost of capital is the actual return of firms in a competitive industry as utilized by Professor Gollop in his corrected version of the 1999 staff study. The financial instruments used by Ad Hoc are not appropriate measures of LEC opportunity costs.[9]

Dr. Taylor also asserts that contrary to Ad Hoc's assertion, minutes is not appropriate to calculate local service output. As Professor Gollop points out in USTA's comments, since the X-Factor is used to cap prices and, therefore, revenues, the choice of an appropriate output measure must be defined as closely as possible to the unit measure on which the price is based.[10] The source of local revenue is flat-rated or line-based. In fact, 67 percent of intrastate revenue is flat rate or line volume related and only 33 percent of intrastate revenue is related to usage.

---

[7] 1997 Price Cap Performance Review at ¶ 23.

[8] Ad Hoc acknowledges that it "agrees in principle that a method of calculating the cost of capital that takes into account the mix of debt and equity held by price cap LECs may yield a more accurate estimate of the trend in the cost of capital." Ad Hoc at 35.

[9] *See,* USTA Comments at Attachment 5 and Attachment 2.

[10] USTA Comments at Attachment 2. Included herein at Attachment 4 is a corrected Table 4 of Professor Gollop's analysis.

More than 80 percent of local revenue is generated from lines. An analysis of revenue sources demonstrates that lines is clearly superior to minutes.[11] Further, the Commission itself has acknowledged that estimates of minutes "are subject to wide margins of error."[12] The knowing use of erroneous data will compromise the model results.

Finally, as Dr. Taylor points out, the Commission has already rejected Ad Hoc's suggestion for a hedonic adjustment. Dr. Taylor explains that hedonic adjustments are not needed to estimate an appropriate X-Factor.

The Commission must acknowledge the simple fact that when the production process is not separable among services, all the information in the world about interstate input and output quantities and prices is not sufficient to make assumptions about unit costs (and thus prices) for interstate services. The Commission cannot adopt a methodology that assumes separability and arbitrarily assigns shared fixed and common costs to each jurisdiction. Such a methodology will not produce price changes that emulate those in the competitive, unregulated market.

C. The Staff Studies are Based on Incorrect Assumptions About Price Cap LEC Earnings.

The Commission claims that the 1997 TFP model is flawed and that the staff studies designed to raise the X-Factor can be justified based on an assumption that price cap LEC interstate earnings are excessive. Consequently, the staff studies remove billions of dollars of total company earnings and corresponding revenues, including those authorized under rate of return regulation from 1986 through the 1990's based on movements in Moody's Baa bonds. Accordingly, the staff studies and the IXCs' proposed changes whereby a carrier's performance under price caps, whether measured by earnings or changes in earnings levels, will be used to set

[11] Ad Hoc observes that the LECs "traditionally sell local service on a flat-rated basis" and that "charges are not directly related to either the number of calls or the number of minutes." Ad Hoc at 9.
[12] Trends in Telephone Service, February 1999 at 12-1.

the target for the next period. This only serves to punish carriers for superior performance and thus diminish the incentives to maximize efficiency. However, the evidence does not support the underlying assumption supporting these changes.

Over the course of this proceeding, USTA has presented evidence demonstrating that price cap LEC earnings have risen at a reasonable level compared to U.S. competitive firms.[13] In addition, USTA has consistently noted that interstate earnings do not provide any economic or otherwise meaningful information regarding a carrier's performance under price caps.[14] For example, interstate earnings are based on flawed accounting treatments, such as inadequate depreciation rates, improper allocation of Internet traffic and arbitrary separation effects.

USTA strongly believes that the Commission should maintain its commitment to the economically meaningful TFP approach to determine the X-Factor. However, an analysis of BOC interstate earnings clearly shows that the assumption that price caps must be "fixed" because interstate earnings are "excessive" is not true. In Table 1 of Attachment 2, USTA shows that the BOCs' industry average after-tax interstate profit margin has remained at or slightly below rate of return levels through 1998 while rate reductions have exceeded $6 billion. This proves that price cap regulation works. Customers have enjoyed significant and continuous rate reductions while the price cap LECs have generated reasonable earnings improvements. These improvements are derived from efficiency gains, not from higher profit margins, as demonstrated on Table 1 by the increasing asset turnover efficiency that shows increasingly higher levels of revenue per dollar of LECs' average net investment.[15]

---

[13] USTA Comments at Attachment 2.
[14] USTA Comments at Attachment 1.
[15] Asset turnover indicates the efficiency of a firm's use of assets in the sense that it measures the annual sales generated by each dollar of assets. *See,* Z. Bodie, A. Kane and A.J. Marcus, *Essentials of Investments*, 1995 at 361.

Using verifiable earnings data as depicted in Table 2 at Attachment 2, from 1991 through 1995 price cap LECs have improved their interstate earnings by only about 27 percent of the total price cap efficiency benefits. These results do not support the drastic changes the Commission and AT&T have proposed which call for billions of dollars worth of adjustments to price cap LEC earnings on an annual basis based on either Baa bond movements or the indirect TFP methodology. These adjustments do raise the X-Factor if that is indeed the Commission's objective regardless of the facts, but also critically harm the ability and incentive of price cap LECs to maintain their traditionally high levels of investment.

In fact, new BOC industry plant investment has totaled $196 billion from 1986 through 1998 and totaled $129 billion from the 1991 through 1998 price cap period.[16] The earnings adjustments proposed in the staff studies, including the disallowance for so-called excess severance expense, would remove $36 billion in income for the 1991 through 1998 period. Compared to actual BOC industry income for that period, such an adjustment would be equivalent to a loss of approximately 28 percent of the $129 billion in new plant investment. This cannot be the Commission's intended result. Certainly recent levels of investment cannot be sustained under the X-Factors proposed by AT&T, MCI and Ad Hoc. If the Commission is truly committed to encouraging investment in telecommunications to further universal service objectives and to ensure the deployment of advanced services, particularly in rural areas, it must not adopt the staff studies and must reject the proposals of AT&T, MCI and Ad Hoc.

D. The Commission Should Utilize the 1997 Model as Updated by USTA in 1998 for the Historical Period and Either the 1997 Model Updated by USTA or the USTA TFPRP Updated Herein Should be Adopted for the Future.

As discussed in USTA's comments, the Commission should utilize the 1997 TFP model as updated by USTA in 1998 to address the concerns of the Court and to calculate the X-Factor

for the historical period covered by the Court remand. Utilizing the 1997 model exactly as the Commission staff designed it and adding data from 1996 and 1997, the X-Factors for 1996 and 1997 were 2.1 percent and 4.1 percent respectively. The most recent five-year averages are as follows:

Averaging Period	USTA Update of 1997 TFP Model (1996 and 1997)
1991 – 1995	5.0 percent
1992 – 1996	4.2 percent
1993 – 1997	4.4 percent

The Commission is prohibited from using either the 1999 staff study or the imputed X staff study for the historical period because these studies rely on a completely different methodology than the 1997 TFP. Pursuant to 47 U.S.C 402(h), the Commission must review and carry out the judgment of a Court based on the proceedings already conducted and the record upon which an appeal was heard and determined. Neither the 1999 staff study nor the imputed X staff study were part of the record of the appeal. USTA's update of the 1997 TFP model was submitted both to the Commission as part of its "refresh" the record inquiry and to the Court in response to the Court's request as to the availability of more recent data.

On a going-forward basis the Commission should continue to develop an industry average X Factor and use a five year rolling average. Either the 1997 TFP model as updated with 1998 data by USTA in 1999 or the USTA TFPRP updated through 1998 as shown in Attachment 3 should be used. Using 1998 data, the 1997 TFP model produces an X-Factor of 3.03 percent. The USTA TFPRP using 1998 data produces an X-Factor of 3.79 percent. The most recent five-year average is displayed below:

[16] Attachment 2, Table 3.

Averaging Period	USTA Update of 1997 TFP Model (1998)	USTA TFPRP
1994 – 1998	4.06 percent	3.71 percent

However, the Commission must recognize that the data used to support all of the models currently under consideration, for the most part, does not include data for the optional price cap LECs. It is not fair to subject carriers to the drastic changes proposed in the staff studies, particularly those carriers that volunteered to adopt price cap regulation without the opportunity to opt out under what they thought would be the specified parameters of the plan, including the established X-Factor. The Commission has recognized in other proceedings that reduced scope and scale warrants different regulatory treatment. For these reasons, USTA supports a differential in the industry average X-Factor for the optional price cap carriers. This differential is justified because the optional price cap carriers may have fewer opportunities to achieve the level of cost savings necessary to sustain an X-Factor appropriate for the mandatory price cap carriers.

In addition, the Commission should ensure that on a going forward basis, it recognize the evidence submitted in the course of this proceeding that productivity growth is actually slowing down due to changing market fundamentals. While it enthusiastically seeks ways to increase the X-Factor, it is reasonable to expect that it would also recognize those factors that will dampen future productivity growth. Professor Gollop previously identified access charge reform and the end of the downward trend in LEC employment as forces that will necessitate a decrease in the X-Factor.[17]

The Commission notes that it expects interstate productivity growth to be substantially greater than overall productivity growth, stating that productivity growth in supplying loop based services is relatively lower than productivity growth related to reductions in switching and

transmission costs.[18] This assumption is based on the historical fact that interstate revenue was predominantly recovered through higher growth usage charges, while local revenue was predominantly recovered through slower growing per line charges. Access reform has altered that assumption. In fact, the recent and proposed restructuring of access charges represents a shift from away from per minute recovery of interstate access revenue to the slower growing per line recovery. Based on TRP data in 1991 approximately 56 percent of industry interstate access revenues were recovered on a minutes of use basis and about 45 percent were recovered on a flat rate basis. As of January 1, 2000, only about 18 percent of industry interstate access revenues are recovered on a minutes of use basis whereas over 82 percent are recovered on a flat rate basis. Changing output to a slower growing measure would require a lower X-Factor. Professor Gollop noted that in 1998, access charge reform reduced the X-Factor by 0.1 to 0.4 percent for 1998.

Professor Gollop also found that the declines in LEC labor employment that were a major contributor to the increase in measured LEC productivity through 1995 slowed in 1996 and ended in 1997. This trend reversal caused the X-Factors in 1996 and 1997 to decrease by 0.43 and 1.04 percentage points respectively from what they otherwise would have been. Past LEC downsizing will not help boost productivity in the future.

Finally, Professor Gollop cited revisions to Bureau of Economic Analysis and Bureau of Labor Statistics which should be incorporated into the Commission's model and which will decrease both the TFP differential and the measured X-Factor.

II. ARGUMENTS SUPPORTING THE CPD ARE FLAWED.

In remanding the retention of the CPD back to the Commission, the Court found that the Commission failed to tie the CPD to a specific productivity increase that could reasonably be

[18] FNPRM at Appendix B.

expected from the elimination of sharing. In an attempt to provide this needed justification, both AT&T and Ad Hoc present several flawed methodologies that purport to estimate the effect that the elimination of sharing had on productivity. They rely on a study conducted by Strategic Policy Research (SPR) submitted in the 1994 price cap performance review. As Dr. Taylor explains, both derive faulty conclusions from that study.

First, AT&T and Ad Hoc misinterpret the SPR study by equating changes in incentives to changes in productivity growth. There is no evidence, in the SPR study or anywhere, that a ten-percent increase in incentives leads to a ten percent increase in productivity growth. Productivity growth is driven by many factors, not just changes in incentives. Such factors include changes in consumer demand growth, consumer income, tastes and preferences, changes in market conditions in the factor markets and changes in technology. There is no basis to conclude that doubling the incentive will necessarily double the growth of TFP. For example, assume a running back in professional football gained 1,000 yards last year and received a bonus of $1,000 per yard. If his bonus were increased to $4,000 per yard this season, his incentive would increase by a factor of four, but no one would necessarily expect him to run for 4,000 yards.

Second, the SPR study overestimates the efficiency incentives under rate of return regulation thereby underestimating the change in incentives from adopting price caps with sharing. Third, the SPR study likely underestimates the efficiency incentives under a 50/50 sharing plan, thus further underestimating the change from adopting price cap with sharing. These errors lead to incorrect estimates of the impact of eliminating sharing on productivity. Combined with additional errors in the measure of the impact on productivity resulting from eliminating rate of return regulation, the conclusions drawn by AT&T and Ad Hoc are economically meaningless.

Further there is no basis to support AT&T's assertion that the selection by practically all of the price cap LECs of the 5.3 percent no sharing option provides evidence of a minimum increase in productivity that could be expected from the elimination of sharing. As USTA pointed out at the time, the price cap options were not productivity choices, but rather sharing choices. The true choice was between the continuation of rate of return regulation at 12.75 percent earnings levels (the 4.0 percent X-Factor option) or price cap regulation with no sharing (the 5.3 percent X-Factor option). Selections were influenced by factors completely unrelated to productivity, including the extent to which study areas were priced below caps, the "add-back" and feedback from the investment community. Some LECs were able to select the no sharing option only with assurances that a lower X-Factor would subsequently be available because accounting earnings would be decreased.[19]

As Dr. Taylor explained in USTA's comments, continuing to include a CPD would effectively double count the benefits of the elimination of sharing and, as a result, defeat the original purpose for eliminating sharing in the first place. The effect of eliminating sharing on productivity has been incorporated in the current X-Factor. The CPD has served its purpose and should be eliminated. The market will do a better job than the CPD to ensure consumer benefits.

III. CONCLUSION.

The Commission must reject both the 1999 staff study and the imputed X staff study. For the remand period the Commission must abide by the Court decision and utilize the 1997 TFP model as updated with data from 1996 and 1997 by USTA. On a going forward basis there is no reason

[19] USTA Ex Parte Letter, CC Docket No. 94-1, May 28, 1996.

to abandon the TFP approach. The Commission can either continue to utilize the 1997 TFP model as updated with 1998 data by USTA or the USTA TFPRP.

Respectfully submitted,

UNITED STATES TELECOM ASSOCIATION

By: Linda L. Kent

Its Attorneys:

Lawrence E. Sarjeant
Linda L. Kent
Keith Townsend
John W. Hunter
Julie E. Rones

1401 H Street, NW, Suite 600
Washington, D. C. 20554
(202) 326-7248

January 24, 2000

ATTACHMENT 1

USTA COMMENTS
CC DOCKET NO. 94-1, 96-262
JANUARY 24, 2000

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION

IN THE MATTER OF	)	
	)	
PRICE CAP PERFORMANCE REVIEW FOR LOCAL EXCHANGE CARRIERS	)	**CC DOCKET NO. 94-1**
	)	
	)	
ACCESS CHARGE REFORM	)	**CC DOCKET NO. 96-26**
	)	

REPLY COMMENTS OF

WILLIAM E. TAYLOR, Ph.D.

ON BEHALF OF

UNITED STATES TELECOM ASSOCIATION

JANUARY 24, 2000

nera
Consulting Economists

REPLY COMMENTS OF
WILLIAM E. TAYLOR, Ph.D.

CC DOCKET NO. 94-1 & 96-262

TABLE OF CONTENTS

I. INTRODUCTION 1

II. AT&T'S INTERSTATE-ONLY TFP METHODOLOGY DOES NOT ADD UP 3

III. AT&T AND AD HOC'S ARGUMENTS REGARDING THE CPD ARE FLAWED 10

A. CHANGES IN INCENTIVES DO NOT EQUATE TO CHANGES IN PRODUCTIVITY GROWTH 11
B. AT&T AND AD HOC MISUSE THE RELATIVE EFFICIENCY GAINS FROM ELIMINATING SHARING REPORTED IN THE SPR STUDY. 13
C. AT&T AND AD HOC OVERSTATE THE CPD BY USING FLAWED MEASURES OF THE PRODUCTIVITY IMPACT RESULTING FROM ELIMINATING ROR REGULATION 16
D. LECS' CHOICE OF A 5.3% X-FACTOR SHOULD NOT BE USED AS A MEASURE OF LIKELY PRODUCTIVITY INCREASES 18

IV. OTHER ISSUES 19

A. AD HOC'S COST OF CAPITAL SENSITIVITY ANALYSIS DOES NOT REFUTE THE FACT THAT LEC OPPORTUNITY COSTS ARE DIFFERENT THAN CHANGES IN CORPORATE BOND RATES OR GOVERNMENT SECURITIES 19
B. MINUTES SHOULD NOT BE USED TO CALCULATE LOCAL SERVICE OUTPUT 20
C. AD HOC'S ARGUMENT THAT HEDONIC CHANGES IN ILEC CAPITAL INPUTS GIVE DISPROPORTIONATELY GREATER WEIGHT TO MORE RECENT YEARS IS UNFOUNDED 21
D. AT&T'S CORRECTION TO THE STAFF'S IMPUTED X STUDY IS INCORRECT AND REVEALS ADDITIONAL ERRORS WITH THE STAFF STUDY 23

V. CONCLUSIONS 24

VI. APPENDIX 26

REPLY COMMENTS OF WILLIAM E. TAYLOR, PH.D.
JANUARY 24, 2000

I. INTRODUCTION

1. My name is William E. Taylor. I am a Senior Vice President of National Economic Research Associates, Inc. (NERA), head of its telecommunications economics practice and head of its Cambridge office. I filed direct comments in this Docket on behalf of the United States Telecom Association ("USTA") on January 7, 2000 and have been asked to reply to some of the economic issues raised by other parties. In particular, two major claims that I address are the assertions:

   - that an interstate-only TFP methodology can be developed in an economically meaningful and defensible manner, and
   - that a study by Strategic Policy Research ("SPR") can be used to develop a measure for the impact that eliminating earnings sharing will have on price-cap LEC productivity.

2. On the contrary, after more than ten years of price cap analysis, debate and decision making, there is one fact that should be clear to all parties by now: there is no economically meaningful definition of an interstate-only X-factor and therefore there is no defensible methodology to estimate it. AT&T's proposal is simply a regurgitation of the Historical Price Method, and it works no better the second time around. Try as it might, AT&T will never be able to produce an economically respectable productivity study for a <u>subset</u> of services in an industry like telecommunications where the production process is not separable by service. AT&T's attempt here relies on the trick of assuming that revenues and costs for interstate services are equal in every period. There is no basis for such an assumption, and without it AT&T's entire house of cards come crashing down. As I demonstrate below and in the Appendix, AT&T's effort was doomed from the start because there is no interstate X-factor to measure.