



Ex Parte Notice

April 20, 1999

Magalie Roman Salas
Secretary
Federal Communications Commission
445 - 12th Street, SW - TW-A325
Washington, D.C. 20554

RECEIVED

APR 20 1999

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Re: CC Docket Nos. 96-262 and 94-1

Dear Ms. Roman Salas:

On April 19, 1999, the undersigned, along with Jay Bennett (SBC), Scott Randolph (GTE), Bob McDonnell (Bell Atlantic), Whit Jordan (BellSouth), Vic Wakeling (BellSouth) and Professor Frank Gollop of Boston College, met with Larry Strickling, Jane Jackson and Yog Varma of the Common Carrier Bureau.

The discussion centered on the USTA update of the FCC's total factor productivity model. Professor Gollop explained that increased earnings is not the source of the decline in the X-factor revealed in the update. Instead, the lower X-factor has resulted from the decline in growth of employment and access rate structure changes. Professor Gollop also explained that interstate-only X is not economically meaningful and that the consumer productivity dividend has no economic basis and should be eliminated. The attached paper was distributed after the discussion.

Pursuant to Commission Rule 1.1206(b)(1), two copies of this letter and attachments are being provided to you for inclusion in the public record for each above-referenced proceeding. Please contact me with any questions.

Sincerely,

Linda L. Kent
Associate General Counsel

enc.

cc w/o attachment: L. Strickling W. Jordan
J. Jackson B. McDonnell
Y. Varma S. Randolph
J. Bennett V. Wakeling

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**AT&T's X-Factor Attachments to
Its January 26, 1999 Ex Parte:
AT&T's Incorrect and Incomplete Story**

Prepared by Frank M. Gollop

Professor of Economics

Boston College

April 12, 1999

AT&T presents twelve bullet conclusions regarding the X-Factor with comments designed to support each statement. Each AT&T conclusion and comment is reproduced in its entirety on the following pages with USTA's response and conclusion.

AT&T POSITION: The X-Factor should be increased to reflect the higher productivity growth of Interstate Access Services.

AT&T

There is no credible evidence that the X-Factor has declined in recent years, as the LECs contended.

On the surface, USTA's update of the FCC's total company productivity study appears to show a declining X-Factor.

These results, however, cannot be blindly accepted at face value without examining the components of the X-Factor and understanding the underlying factors at work.

USTA

False: Replicating and updating the FCC's model (using data available 2/99) shows X-Factors equal to 2.56% and 3.97% for 1996 and 1997, respectively. AT&T's own baseline update of the FCC model (using data available 12/98) yields 1996 and 1997 X-Factors equaling 2.5% and 4.6%, respectively. (Attachment to AT&T ex parte letter, January 26, 1999). The five-year (1993-97) average X-Factor in the FCC update is 4.4%.

True: Replication of FCC methods and application of the most recent published data shows a declining X-Factor.

True: Neither USTA's nor AT&T's conclusions should be accepted at face value. Note, none of the three AT&T comments supports its conclusions that (a) X should be increased or (b) interstate services have higher productivity growth.

USTA POSITION: The X-Factor should be reduced to reflect the substantially reduced X-Factors for 1996 and 1997, results generated from the FCC's own spreadsheet model.

AT&T POSITION: USTA's argument that productivity growth is slowing down is based on:

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Soaring LEC earnings that cause the input price index to rise in the FCC model.

Failure to reflect the substantial growth in usage that has occurred in the last 2-3 years.

USTA

False: First, there is no link between accounting rates of return and the input price index in the FCC model. AT&T confuses accounting rates of return with changes in the economic rate of return embedded in the FCC model. Accounting rates of return are based on net plant defined under a cost-plus paradigm that predates incentive regulation while the rental price of capital and the rate of return in the FCC model are based on capital stock as specified in the FCC model. Net plant declined by 10% from 1990 to 1997 while capital stock increased by 18% over the same period, roughly paralleling the 16% growth in earnings. Accounting returns may have risen but economic returns have not.

False: AT&T proposes changing the FCC model. It wants the FCC to use local DEMs (rather than calls) to measure local usage for 1996 and 1997. (1) Because the purpose of X is to set a cap on prices and revenues, sources of revenue determine the proper measure of output in the X-Factor model. 67% of intrastate revenue is associated with flat-rate line volume; only 33% of intrastate revenue is related to usage. Focusing on the sources of local revenue, more than 90% is generated from lines. Only a very small portion is associated with local DEMs. (2) During the comment round addressing the specification of the X-Factor model, AT&T itself urged the Commission to use calls as the measure of local output

USTA POSITION: USTA's conclusion that productivity growth is slowing down is based, first, on results generated from the updated FCC model and, second, on changing market fundamentals including consequences of access reform and the end to the downward trend in LEC employment experienced during the early price-cap years.

AT&T POSITION: The recent surge in LEC earnings has the unintended consequence of causing the measured X-Factor to decline in the updated FCC model.

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USTA cites an X-Factor of 2.11% for 1996, followed by a 4.14% in 1997, as evidence that recent productivity growth is declining.

For 1996, closer examination of the data shows that the low X-Factor is attributable in part to an unusually large increase (9.07%) in the "Capital Rental Price Index."

This inflates the input price index and reduces the X-Factor. A 9.07% increase in the capital rental price causes the input price index to rise by 3.8% and reduces the computed X-Factor for 1996 by 3.8%.

The increased "capital rental price" is due to a huge surge in LEC earnings from 1995 to 1996 rather than any increase in the real cost of LEC inputs. The RBOCs' total composite (state and interstate) ROR rose from 10.87% in 1995 to 12.46% and 13.56% in 1996 and 1997.

USTA

True: The FCC model's results for 1996 and 1997 do provide evidence that recent productivity growth is declining.

True: "...attributable in part..." One factor contributing to the decline in X is the rise in the "Capital Rental Price Index," a purposefully designed characteristic of the FCC model. Moreover, the specific form of the capital rental price in the FCC model was designed by AT&T and recommended to the Commission for adoption.

True: The X-Factor model is properly and intentionally designed so that an increase in any input price (labor, material, or capital) results in a reduction in X. Symmetrically, a decrease in LEC input prices increases X. The 2.56% X-Factor in 1996 would have been higher had the rental price of capital not increased by 9.07% just as the 3.97% X-Factor in 1997 would have been lower had the LEC rental price of capital not decreased by 2.67%, a result reported in the updated FCC model. The FCC model treats increases and decreases in capital's rental price perfectly symmetrically.

False: (1) Changes in the rental price of capital result from changes in earnings as well as any of the other components of capital expense including depreciation, amortization, interest expense, taxes (local, state, and federal), rent, business transfers, etc. The assertion that the increase in the rental price is the sole result of an increase in earnings is false. (2) AT&T's conclusion is also refuted by the data. If, as AT&T asserts, the 1996 increase in the rental price is the anomalous result of the increase in LEC earnings, then one would expect that the 1997 rental price would have shown a similarly large increase since, according to AT&T, the LECs' ROR increased from 12.46% in 1996 to 13.56% in 1997. In fact, the updated FCC model shows that the LEC rental price of capital fell by 2.67% in 1997. The rental price is a

function of far more than LEC earnings. (3) Accounting rates of return are based on "net plant" which declined by 10% between 1990 and 1997 while capital stock in the X-Factor model increased by 18% over the same period, creating nearly a 30 percentage point spread. Since net plant based on historical accounting costs and economically meaningful capital stock bear no necessary relationship, one cannot create a cause/effect relationship between movements in traditional accounting rates of return and the FCC's rental price of capital. These conclusions, of course, are ones with which AT&T is quite familiar. It made exactly this point in its own price-cap proceedings.

In the FCC model, increased earnings are treated as an increase in the price of LEC inputs and serve to reduce X-factor.

False: (1) It is an increase in the realized economic rate of return and not the dollar level of earnings that causes an increase in input prices in the FCC model. This not only is a design feature of the FCC model but also had been proposed by AT&T. AT&T claimed then that this specification "conformed to economic theory" and that it "conform(ed) to the reality of the telecommunications industry." (2) AT&T confuses accounting rates of return from a cost-plus regulatory regime with the economic rate of return embedded in the X-Factor model. The former is based on "net plant" which has declined by 10% over the 1990-97 period while the latter is based on economic capital stock which has increased by 18% over the same period. (3) The "differential" structure of the FCC model requires that the FCC's rental price of capital for the LECs be measured exactly as the BLS does for the U.S. economy. Both are based on "capital stock" and realized economic returns.

USTA's analysis perversely interprets soaring earnings as an indication that the X-Factor is declining.

False: USTA offers no such interpretation. AT&T raises the specter of earnings as the source of decline in X in an attempt to resuscitate rate-of-return regulation.

USTA POSITION: The reduction in 1996 and 1997 X-Factors is not the anomalous result of the increase in LEC earnings. In fact, the economic rate of return embedded in the FCC model has remained relatively constant over the full 1990-97 period. The reduction in X is due to structural changes including (i) the end of the reduction in labor employment in the early price-cap years and (ii) the introduction of access reform.

AT&T POSITION: Reflecting the substantial growth in usage that has occurred in the last 2-3 years shows that the X-factor is increasing.

AT&T

Use of publicly available data (i.e., 1996 intrastate DEMs, 1997 special access lines) increases Gollop's X-factors from 2.1% to 2.5% in 1996 and from 4.1% to 4.6% in 1997. (Footnote (4): Based on revised data from the 12/98 SOCCC.)

Use of local DEMs instead of local calls increases the X-factor to 5.2% for 1996 and to 9.7% for 1997.

USTA

False: Data available as of 2/99 show the updated results to be 2.56% for 1996 and 3.97% for 1997. But there is no need to quibble. Under any vintage of updated results, the 1996 and 1997 X-Factors are considerably below the Commission's 6.5% policy standard.

True numerically; false as an appropriate modification to the FCC model. (1) AT&T offers no economic foundation for its proposed change to the measure of local output in the FCC model. That DEMs grow faster than calls is not an economic foundation. (2) DEMs also are inconsistent with the structure of any X-Factor. Since X is being used to cap prices and revenue, it is the sources of local revenue that form the proper external standard defining the measure of local output. Only 33% of intrastate revenues is derived from per use-rates; 67% is associated with flat line-related rates. (3) AT&T now is criticizing "calls," the very measure of local output it proposed in 1996.

USTA POSITION: There is no economically meaningful basis supporting the substitution of DEMs for calls as the measure of local output in the FCC model.

AT&T POSITION: Reflecting the substantial growth in usage that has occurred in the last 2-3 years and adjusting for the capital rental price results in total company X-factors of 9.4% in 1996 and 12.2% in 1997. [Footnote (5): Adjusted for distortion caused by soaring LEC earnings. (LEC revenues are adjusted to produce 10.57% overall ROR in 1996/97).]

AT&T

USTA

AT&T presents its above position without offering further elaboration. The 1996 and 1997 X-Factors derived directly from the FCC model require none of the adjustments proposed by AT&T. (1) AT&T offers no economic foundation for inserting local DEMs in the FCC model. (2) Local output in the FCC model is measured exactly as AT&T specified in 1996. (3) There is no link between accounting rates of return and the FCC's rental price of capital. Moreover, the rental price is specified just as AT&T urged in 1996 and as required by the "differential" structure of its model. (4) Any observed change in the rental price of capital is due to changes in all the factors underlying the cost of capital. AT&T's "earnings adjustment" ignores the role of depreciation, taxes, interest expense, etc. AT&T inappropriately imputes to earnings 100% responsibility for the increase in the rental price and bases its claim on a rate of return defined on "net plant," a variable that does not enter the FCC model. "Capital stock" is the appropriate measure of capital input and is the measure used in the FCC model.

USTA POSITION: No change to the FCC model is justified nor is any earnings adjustment required. AT&T's recommended change from calls to DEMs has no economic foundation. Its earnings adjustment is based on a premise that mischaracterizes the factors affecting the rental price of capital.

AT&T POSITION: The X-factor should be based on the higher productivity growth of interstate access services.

AT&T

Growth in interstate output far exceeds growth in total company output.

Growth in interstate costs has not exceeded growth in total company costs.

The continuous rise in LEC interstate RORs -- from 11.78% in 1991 to 15.64% in 1997 -- confirms that interstate productivity growth has far exceeded the X-factors in effect.

LECs have repeatedly argued in state proceedings that intrastate productivity growth is less than interstate. Current intrastate X-factors are lower as a result.

The FCC should thus focus on interstate results in developing the X-factor.

USTA POSITION: Economic theory is clear. Any allocation of common costs to interstate and intrastate services is arbitrary and without economic meaning. A total company analysis is the only economically meaningful approach to measuring X, a position correctly adopted by the Commission in May 1997.

USTA

True statement; False inference: Interstate output has grown faster than total company output but any inference regarding interstate productivity requires a separate analysis of both outputs and inputs specific to interstate services. Economic theory is unambiguous and uncompromising: Any allocation of inputs and costs to interstate vs. intrastate services has no economic meaning. Any allocation is arbitrary.

False: Part 36 separations is the only possible basis for this position. Under separations, AT&T's statement is a mathematical truism. Under any fixed separation in costs, interstate and total company costs definitionally increase at identical rates. Cost allocations under separations, however, do not reflect economic costs.

False: The Commission's cost allocation rules necessarily are based on FCC separations rules rather than any underlying economic reality. Since rates of return calculated via separations are not tracking incremental changes in economic costs, these accounting rates of return are not tracking productivity growth in interstate services.

USTA's response is presented clearly by Dr. William Taylor in Attachment A of USTA's Reply Comment (November 9, 1998), at pp. 5-6: "LEC economists have consistently urged state and federal regulators to base the productivity offset on measured TFP for all LEC services."

False: Any attempt to do this would be based on an arbitrary allocation of costs. A total company analysis is the only economically meaningful approach to measuring X.

AT&T POSITION: Contrary to LEC arguments, rising interstate rates of return are relevant to the X-factor issue.

AT&T

The FCC's objective is to "ensure that on-going gains by the LECs in reducing unit costs are passed through to consumers" [FCC's Fourth FNPRM in Docket 94-1 (9/27/95), para 16]

Increasing interstate RORs indicate that revenues are increasing by more than (regulated) costs, and prices are thus increasing relative to unit costs. Reductions in unit costs are not being passed through to consumers.

USTA POSITION: Contrary to AT&T's arguments, rising LEC earnings and RORs are the visible, expected, and encouraged result of price-cap regulation. The potential to keep some share of higher earnings is the carrot that stimulates productivity growth with productivity gains above X shared by both the LECs in terms of higher profits and their access customers in terms of lower prices.

USTA

False: Read literally, this would suggest the Commission's objective is to grant 100% of LEC productivity improvements to consumers, leaving the LECs with absolutely no incentive to seek productivity improvements. This would be inconsistent with the FCC's long-standing commitment to incentive-based regulation, a position better reflected in the passage just preceding the one cited by AT&T: "The price cap plan encourages LECs to increase their productivity and thereby reduce unit costs, because LECs can increase their profits if the changes in their unit costs are below the level reflected in the X-Factor." [FCC's Fourth FNPRM in Docket 94-1 (9/27/95), para 13.]

False: (1) The reference to regulated costs implies that a cost allocation has been achieved in the face of common inputs, an outcome identified as arbitrary and economically meaningless by economic theory. An appeal to Part 36 separations conventions does not address this issue. (2) AT&T mistakenly believes that the central precept of PCI regulation is that the X must be set so that 100% of LEC productivity gains are passed through to consumers. The very nature of incentive-based regulation belies this position. (3) Unit cost reductions are being passed through to consumers. Access charges have declined by 42% between 1991 and 1997. (4) All reductions in unit costs are captured in either the productivity or input price terms in the FCC's model.

AT&T POSITION: The linkage between earnings and the X-factor is recognized by the LECs' own consultants:

AT&T

"The annual price cap adjustment formula is designed so that if the firm exceeds industry average productivity growth (its productivity target), its earnings will increase, and if it falls short of industry average productivity growth, its earnings will decline."

USTA

True: This is exactly a central design feature of any price-cap paradigm. The FCC recognizes this: "The price cap plan encourages LECs to increase their productivity, and thereby reduce unit costs, because LECs can increase their profits if the changes in their unit costs are below the level reflected in the X-Factor." [FCC's Fourth FNPRM in Docket 94-1 (9/27/95), para 13.] AT&T makes its statement in the hope of justifying an "earnings adjustment" to X but thereby fails to recognize the affirmative role of earnings as a productivity stimulant in incentive regulation.

USTA POSITION: Both USTA and the Commission recognize that it is the opportunity for improved earnings that provides the productivity stimulant in the price-cap paradigm.

AT&T POSITION: If the X were set properly, firms that exceed industry average productivity growth would enjoy rising earnings, while firms that fall short would have declining earnings.

AT&T

USTA

AT&T presents its above position without offering further elaboration. False. AT&T's position that earnings performance has some inference for properly setting X is false. The Commission has long recognized that the proper basis for setting X is not some target level of LEC earnings but the expected level of LEC productivity growth vis-à-vis economy-wide performance. This is the central feature of incentive regulation.

USTA POSITION: AT&T's statement is premised on rate-of-return regulation dressed up in X-Factor clothing. Calibrating X on the basis of "accounting" earnings performance not only is inconsistent with the role of "economic" earnings in the X-Factor model but also emasculates the incentive feature of price-cap regulation. The promise of earnings growth is the carrot that stimulates productivity growth for the benefit of the LECs and their access customers.

AT&T POSITION: If most firms enjoy increasing earnings ratios, this is strong evidence that the X-factor is too low.

AT&T

AT&T presents its above position without offering further elaboration.

USTA

False. (1) LEC earnings are a stand-alone measure of LEC financial performance. The FCC's X-Factor, in contrast, is intentionally modeled as a performance differential between the LECs and firms in the overall economy. The LECs are to ride the same tide as do firms in the rest of the economy. Between 1991 and 1997, dollar earnings of all U.S. non-financial corporations have increased faster than LEC interstate earnings. (Attachment C, USTA Comments, October 26, 1998) There is no economically meaningful or intended link between the growth in LEC earnings ratios and X. (2) AT&T persists in clinging to a rate-of-return paradigm. A fair paraphrase of its statement is: If all firms enjoy constant earnings ratios, the X-Factor is just right. But constant rates of return are not the regulatory standard under price caps. In fact, increasing rates of return are the expected and intended result of incentive regulation. The other intended result, of course, is price reductions for access customers. Falling access prices (42% since 1991) and rising LEC earnings are the visible and intended result of a well-designed X-Factor.

USTA POSITION: Rising rates of return (along with falling access prices) are the central design features of price cap regulation. The potential for increased earnings is the carrot which stimulates LEC productivity growth to the benefit of the LECs (increased earnings) and its customers (lower prices). AT&T wants to revive rate-of-return regulation, a welfare-reducing paradigm with adverse effects for both ratepayers and the LECs.

AT&T POSITION: The rising trend in LEC interstate rates of return corroborates AT&T's estimates of interstate productivity growth.

AT&T

AT&T presents its above position without offering further elaboration.

USTA

False. "Interstate productivity growth" is an undefined economic concept. Interstate rates of return, calculated via Part 36 separations rules, do not track economic costs and therefore have no inference for "interstate" productivity growth. In any case, one cannot draw inferences for productivity growth from rates of return. As AT&T itself stated: "Rates of return cannot be compared directly to percentage price changes mandated by the price cap index or otherwise achieved through efficiency gains." (Fn. 86, p. 46, AT&T Comments, 92-124, Sept. 4, 1992.)

USTA POSITION: Movements in the interstate rate of return have no necessary inference for productivity growth and certainly not for "interstate" productivity growth, an economically meaningless concept.

AT&T POSITION: Recalculation of the X-factor in the FCC model to reflect growth in interstate output, adjustments for separations, adjustments for the capital rental price index, and adjustments for access reform results in an X-factor of 10.2% for the period 1987-1997. Adding the CPD yields 10.7%.

AT&T

USTA

AT&T presents its above position without offering further elaboration. False. Interstate-only and separations adjustments have no economically meaningful foundation. Modifying the rental price of capital would create a modeling inconsistency between the FCC and BLS models, the latter being the basis for the "differential" structure of the FCC's X-Factor. The forward-looking nature of the X-Factor requires an adjustment for access reform as AT&T acknowledges but no adjustment for the CPD. If anything, the updated FCC model supports an X-Factor well below the Commission's current 6.5% level.

USTA POSITION: Having failed to find fault with USTA's update of the FCC model but not liking its unambiguous results, AT&T now calls for a series of changes to the FCC model. None is economically meaningful. Many are additionally refuted by straightforward simulations through the FCC model. Recent past and forward-looking X-Factors must be set lower than the Commission's current 6.5% standard.

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False: Replicating and updating the FCC's model (using data available 2/99) shows X-Factors equal to 2.56% and 3.97% for 1996 and 1997, respectively. AT&T's own baseline update of the FCC model (using data available 12/98) yields 1996 and 1997 X-Factors equaling 2.5% and 4.6%, respectively. (Attachment to AT&T ex parte letter, January 26, 1999). The five-year (1993-97) average X-Factor in the FCC update is 4.4%.

True: Replication of FCC methods and application of the most recent published data shows a declining X-Factor.

True: Neither USTA's nor AT&T's conclusions should be accepted at face value. Note, none of the three AT&T comments supports its conclusions that (a) X should be increased or (b) interstate services have higher productivity growth.

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False: AT&T proposes changing the FCC model. It wants the FCC to use local DEMs (rather than calls) to measure local usage for 1996 and 1997. (1) Because the purpose of X is to set a cap on prices and revenues, sources of revenue determine the proper measure of output in the X-Factor model. 67% of intrastate revenue is associated with flat-rate line volume; only 33% of intrastate revenue is related to usage. Focusing on the sources of local revenue, more than 90% is generated from lines. Only a very small portion is associated with local DEMs. (2) During the comment round addressing the specification of the X-Factor model, AT&T itself urged the Commission to use calls as the measure of local output

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True: The FCC model's results for 1996 and 1997 do provide evidence that recent productivity growth is declining.

True: "...attributable in part..." One factor contributing to the decline in X is the rise in the "Capital Rental Price Index," a purposefully designed characteristic of the FCC model. Moreover, the specific form of the capital rental price in the FCC model was designed by AT&T and recommended to the Commission for adoption.

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False: (1) Changes in the rental price of capital result from changes in earnings as well as any of the other components of capital expense including depreciation, amortization, interest expense, taxes (local, state, and federal), rent, business transfers, etc. The assertion that the increase in the rental price is the sole result of an increase in earnings is false. (2) AT&T's conclusion is also refuted by the data. If, as AT&T asserts, the 1996 increase in the rental price is the anomalous result of the increase in LEC earnings, then one would expect that the 1997 rental price would have shown a similarly large increase since, according to AT&T, the LECs' ROR increased from 12.46% in 1996 to 13.56% in 1997. In fact, the updated FCC model shows that the LEC rental price of capital fell by 2.67% in 1997. The rental price is a

function of far more than LEC earnings. (3) Accounting rates of return are based on "net plant" which declined by 10% between 1990 and 1997 while capital stock in the X-Factor model increased by 18% over the same period, creating nearly a 30 percentage point spread. Since net plant based on historical accounting costs and economically meaningful capital stock bear no necessary relationship, one cannot create a cause/effect relationship between movements in traditional accounting rates of return and the FCC's rental price of capital. These conclusions, of course, are ones with which AT&T is quite familiar. It made exactly this point in its own price-cap proceedings.

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USTA

False: Data available as of 2/99 show the updated results to be 2.56% for 1996 and 3.97% for 1997. But there is no need to quibble. Under any vintage of updated results, the 1996 and 1997 X-Factors are considerably below the Commission's 6.5% policy standard.

True numerically; false as an appropriate modification to the FCC model. (1) AT&T offers no economic foundation for its proposed change to the measure of local output in the FCC model. That DEMs grow faster than calls is not an economic foundation. (2) DEMs also are inconsistent with the structure of any X-Factor. Since X is being used to cap prices and revenue, it is the sources of local revenue that form the proper external standard defining the measure of local output. Only 33% of intrastate revenues is derived from per use-rates; 67% is associated with flat line-related rates. (3) AT&T now is criticizing "calls," the very measure of local output it proposed in 1996.

USTA POSITION: There is no economically meaningful basis supporting the substitution of DEMs for calls as the measure of local output in the FCC model.

AT&T POSITION: Reflecting the substantial growth in usage that has occurred in the last 2-3 years and adjusting for the capital rental price results in total company X-factors of 9.4% in 1996 and 12.2% in 1997. [Footnote (5): Adjusted for distortion caused by soaring LEC earnings. (LEC revenues are adjusted to produce 10.57% overall ROR in 1996/97).]

AT&T

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AT&T presents its above position without offering further elaboration. The 1996 and 1997 X-Factors derived directly from the FCC model require none of the adjustments proposed by AT&T. (1) AT&T offers no economic foundation for inserting local DEMs in the FCC model. (2) Local output in the FCC model is measured exactly as AT&T specified in 1996. (3) There is no link between accounting rates of return and the FCC's rental price of capital. Moreover, the rental price is specified just as AT&T urged in 1996 and as required by the "differential" structure of its model. (4) Any observed change in the rental price of capital is due to changes in all the factors underlying the cost of capital. AT&T's "earnings adjustment" ignores the role of depreciation, taxes, interest expense, etc. AT&T inappropriately imputes to earnings 100% responsibility for the increase in the rental price and bases its claim on a rate of return defined on "net plant," a variable that does not enter the FCC model. "Capital stock" is the appropriate measure of capital input and is the measure used in the FCC model.

USTA POSITION: No change to the FCC model is justified nor is any earnings adjustment required. AT&T's recommended change from calls to DEMs has no economic foundation. Its earnings adjustment is based on a premise that mischaracterizes the factors affecting the rental price of capital.

AT&T POSITION: The X-factor should be based on the higher productivity growth of interstate access services.

AT&T

Growth in interstate output far exceeds growth in total company output.

Growth in interstate costs has not exceeded growth in total company costs.

The continuous rise in LEC interstate RORs -- from 11.78% in 1991 to 15.64% in 1997 -- confirms that interstate productivity growth has far exceeded the X-factors in effect.

LECs have repeatedly argued in state proceedings that intrastate productivity growth is less than interstate. Current intrastate X-factors are lower as a result.

The FCC should thus focus on interstate results in developing the X-factor.

USTA POSITION: Economic theory is clear. Any allocation of common costs to interstate and intrastate services is arbitrary and without economic meaning. A total company analysis is the only economically meaningful approach to measuring X, a position correctly adopted by the Commission in May 1997.

USTA

True statement; False inference: Interstate output has grown faster than total company output but any inference regarding interstate productivity requires a separate analysis of both outputs and inputs specific to interstate services. Economic theory is unambiguous and uncompromising: Any allocation of inputs and costs to interstate vs. intrastate services has no economic meaning. Any allocation is arbitrary.

False: Part 36 separations is the only possible basis for this position. Under separations, AT&T's statement is a mathematical truism. Under any fixed separation in costs, interstate and total company costs definitionally increase at identical rates. Cost allocations under separations, however, do not reflect economic costs.

False: The Commission's cost allocation rules necessarily are based on FCC separations rules rather than any underlying economic reality. Since rates of return calculated via separations are not tracking incremental changes in economic costs, these accounting rates of return are not tracking productivity growth in interstate services.

USTA's response is presented clearly by Dr. William Taylor in Attachment A of USTA's Reply Comment (November 9, 1998), at pp. 5-6: "LEC economists have consistently urged state and federal regulators to base the productivity offset on measured TFP for all LEC services."

False: Any attempt to do this would be based on an arbitrary allocation of costs. A total company analysis is the only economically meaningful approach to measuring X.

AT&T POSITION: Contrary to LEC arguments, rising interstate rates of return are relevant to the X-factor issue.

AT&T

The FCC's objective is to "ensure that on-going gains by the LECs in reducing unit costs are passed through to consumers" [FCC's Fourth FNPRM in Docket 94-1 (9/27/95), para 16]

Increasing interstate RORs indicate that revenues are increasing by more than (regulated) costs, and prices are thus increasing relative to unit costs. Reductions in unit costs are not being passed through to consumers.

USTA POSITION: Contrary to AT&T's arguments, rising LEC earnings and RORs are the visible, expected, and encouraged result of price-cap regulation. The potential to keep some share of higher earnings is the carrot that stimulates productivity growth with productivity gains above X shared by both the LECs in terms of higher profits and their access customers in terms of lower prices.

USTA

False: Read literally, this would suggest the Commission's objective is to grant 100% of LEC productivity improvements to consumers, leaving the LECs with absolutely no incentive to seek productivity improvements. This would be inconsistent with the FCC's long-standing commitment to incentive-based regulation, a position better reflected in the passage just preceding the one cited by AT&T: "The price cap plan encourages LECs to increase their productivity and thereby reduce unit costs, because LECs can increase their profits if the changes in their unit costs are below the level reflected in the X-Factor." [FCC's Fourth FNPRM in Docket 94-1 (9/27/95), para 13.]

False: (1) The reference to regulated costs implies that a cost allocation has been achieved in the face of common inputs, an outcome identified as arbitrary and economically meaningless by economic theory. An appeal to Part 36 separations conventions does not address this issue. (2) AT&T mistakenly believes that the central precept of PCI regulation is that the X must be set so that 100% of LEC productivity gains are passed through to consumers. The very nature of incentive-based regulation belies this position. (3) Unit cost reductions are being passed through to consumers. Access charges have declined by 42% between 1991 and 1997. (4) All reductions in unit costs are captured in either the productivity or input price terms in the FCC's model.

AT&T POSITION: The linkage between earnings and the X-factor is recognized by the LECs' own consultants:

AT&T

"The annual price cap adjustment formula is designed so that if the firm exceeds industry average productivity growth (its productivity target), its earnings will increase, and if it falls short of industry average productivity growth, its earnings will decline."

USTA

True: This is exactly a central design feature of any price-cap paradigm. The FCC recognizes this: "The price cap plan encourages LECs to increase their productivity, and thereby reduce unit costs, because LECs can increase their profits if the changes in their unit costs are below the level reflected in the X-Factor." [FCC's Fourth FNPRM in Docket 94-1 (9/27/95), para 13.] AT&T makes its statement in the hope of justifying an "earnings adjustment" to X but thereby fails to recognize the affirmative role of earnings as a productivity stimulant in incentive regulation.

USTA POSITION: Both USTA and the Commission recognize that it is the opportunity for improved earnings that provides the productivity stimulant in the price-cap paradigm.

AT&T POSITION: If the X were set properly, firms that exceed industry average productivity growth would enjoy rising earnings, while firms that fall short would have declining earnings.

AT&T

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AT&T presents its above position without offering further elaboration. False. AT&T's position that earnings performance has some inference for properly setting X is false. The Commission has long recognized that the proper basis for setting X is not some target level of LEC earnings but the expected level of LEC productivity growth vis-à-vis economy-wide performance. This is the central feature of incentive regulation.

USTA POSITION: AT&T's statement is premised on rate-of-return regulation dressed up in X-Factor clothing. Calibrating X on the basis of "accounting" earnings performance not only is inconsistent with the role of "economic" earnings in the X-Factor model but also emasculates the incentive feature of price-cap regulation. The promise of earnings growth is the carrot that stimulates productivity growth for the benefit of the LECs and their access customers.

AT&T POSITION: If most firms enjoy increasing earnings ratios, this is strong evidence that the X-factor is too low.

AT&T

AT&T presents its above position without offering further elaboration.

USTA

False. (1) LEC earnings are a stand-alone measure of LEC financial performance. The FCC's X-Factor, in contrast, is intentionally modeled as a performance differential between the LECs and firms in the overall economy. The LECs are to ride the same tide as do firms in the rest of the economy. Between 1991 and 1997, dollar earnings of all U.S. non-financial corporations have increased faster than LEC interstate earnings. (Attachment C, USTA Comments, October 26, 1998) There is no economically meaningful or intended link between the growth in LEC earnings ratios and X. (2) AT&T persists in clinging to a rate-of-return paradigm. A fair paraphrase of its statement is: If all firms enjoy constant earnings ratios, the X-Factor is just right. But constant rates of return are not the regulatory standard under price caps. In fact, increasing rates of return are the expected and intended result of incentive regulation. The other intended result, of course, is price reductions for access customers. Falling access prices (42% since 1991) and rising LEC earnings are the visible and intended result of a well-designed X-Factor.

USTA POSITION: Rising rates of return (along with falling access prices) are the central design features of price cap regulation. The potential for increased earnings is the carrot which stimulates LEC productivity growth to the benefit of the LECs (increased earnings) and its customers (lower prices). AT&T wants to revive rate-of-return regulation, a welfare-reducing paradigm with adverse effects for both ratepayers and the LECs.

AT&T POSITION: The rising trend in LEC interstate rates of return corroborates AT&T's estimates of interstate productivity growth.

AT&T

AT&T presents its above position without offering further elaboration.

USTA

False. "Interstate productivity growth" is an undefined economic concept. Interstate rates of return, calculated via Part 36 separations rules, do not track economic costs and therefore have no inference for "interstate" productivity growth. In any case, one cannot draw inferences for productivity growth from rates of return. As AT&T itself stated: "Rates of return cannot be compared directly to percentage price changes mandated by the price cap index or otherwise achieved through efficiency gains." (Fn. 86, p. 46, AT&T Comments, 92-124, Sept. 4, 1992.)

USTA POSITION: Movements in the interstate rate of return have no necessary inference for productivity growth and certainly not for "interstate" productivity growth, an economically meaningless concept.

AT&T POSITION: Recalculation of the X-factor in the FCC model to reflect growth in interstate output, adjustments for separations, adjustments for the capital rental price index, and adjustments for access reform results in an X-factor of 10.2% for the period 1987-1997. Adding the CPD yields 10.7%.

AT&T

USTA

AT&T presents its above position without offering further elaboration. False. Interstate-only and separations adjustments have no economically meaningful foundation. Modifying the rental price of capital would create a modeling inconsistency between the FCC and BLS models, the latter being the basis for the "differential" structure of the FCC's X-Factor. The forward-looking nature of the X-Factor requires an adjustment for access reform as AT&T acknowledges but no adjustment for the CPD. If anything, the updated FCC model supports an X-Factor well below the Commission's current 6.5% level.

USTA POSITION: Having failed to find fault with USTA's update of the FCC model but not liking its unambiguous results, AT&T now calls for a series of changes to the FCC model. None is economically meaningful. Many are additionally refuted by straightforward simulations through the FCC model. Recent past and forward-looking X-Factors must be set lower than the Commission's current 6.5% standard.
